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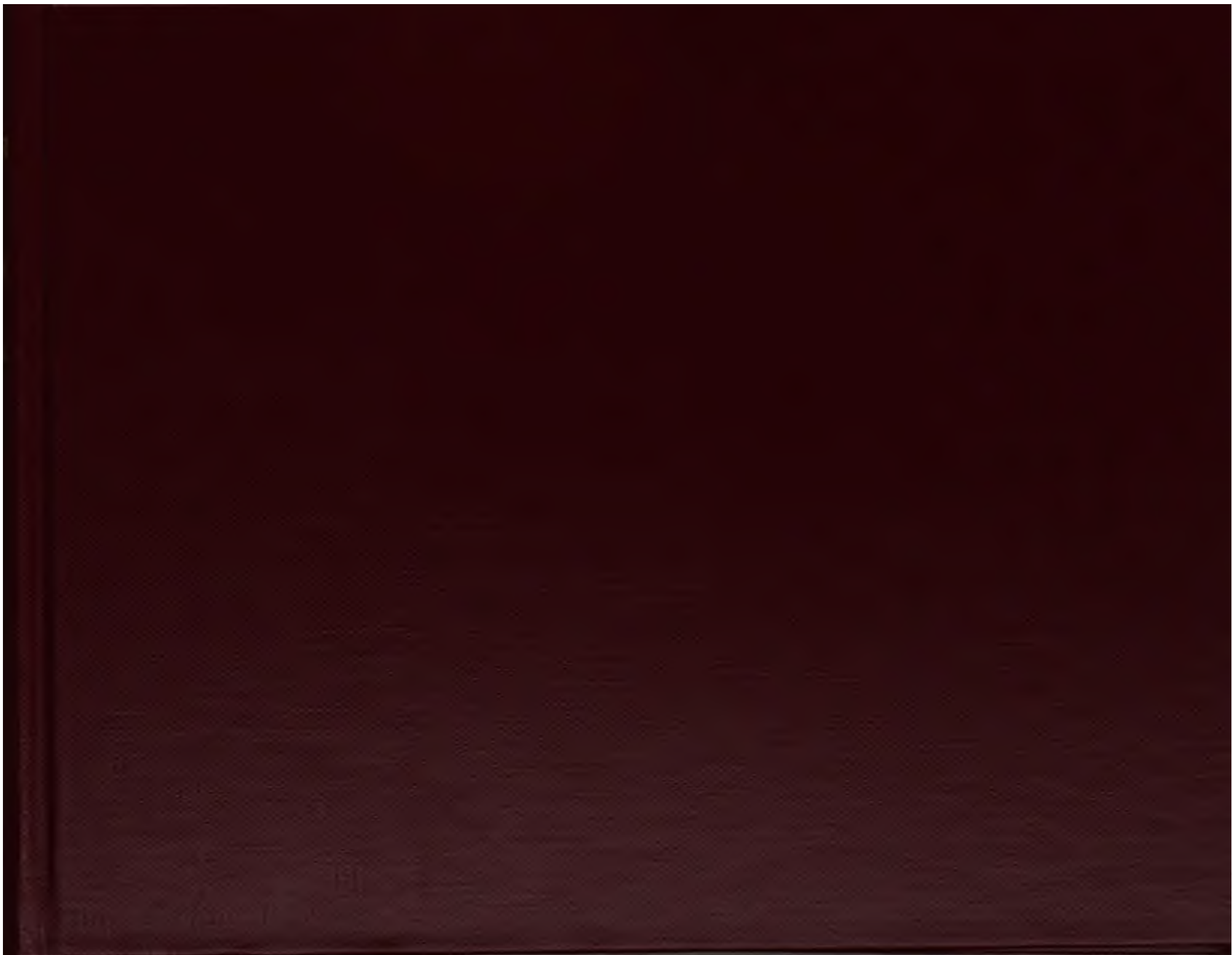
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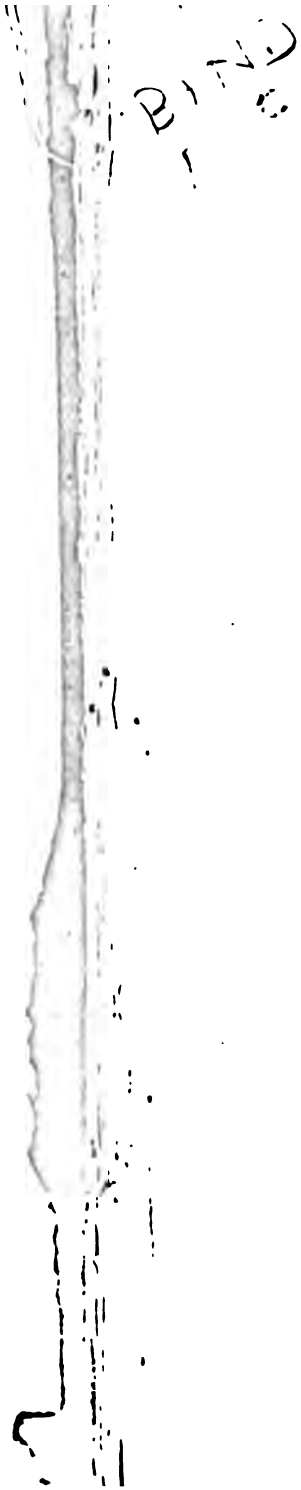


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**THE DEVELOPMENT OF
STRATEGICAL SCIENCE
DURING THE 19TH CENTURY**



THE DEVELOPMENT OF STRATEGICAL SCIENCE,

DURING THE 19TH CENTURY

BY
LIEUT.-GENERAL VON CAEMMERER

German Army

AUTHORIZED TRANSLATION

BY
KARL VON DONAT

*Late Lieutenant Colonel (Fusilier) Regiment, German Army
Author of "Studies in Applied Tactics"*

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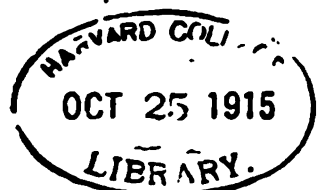
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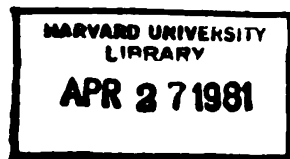
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PREFACE

THE subject of this book is the Theory of War. I think that on this account the book may be of some interest to a threefold class of readers.

First of all, I look forward to the kind interest of those senior officers who frequently have occupied themselves with theoretical matters. I may be permitted to call attention to the fact that my work furnishes for the first time a comprehensive review of the development of strategical science in the past century; but that it tries, besides, to give scientific reasons for the standpoint from which strategy is to be viewed at the present and in the near future. As regards the importance of such an enterprise, I appeal to some words of Clausewitz: "There is, upon the whole, nothing more important in life than to find out the right point of view from which things should be looked at and judged of, and then to keep to that point; for we can only apprehend the mass of events in their unity from *one* standpoint, and it is only the keeping to one point of view that guards us from inconsistency."¹

I next address my young comrades in the Army,

¹ *On War*, book viii. chap. G, B.

to whom the vast domain of the art of war is as yet only partly visible. Even he who for the present has no chance of practically exercising the art of a General, who only wishes to train his mind by the study of military history for the various problems which our splendid profession may have in store for him, cannot do without theory. It is an erroneous assertion when from time to time it is proclaimed that theory is barren and injurious. In the remotest ages of the human race, acting without theoretical training may have been all right; but when civilisation began, training of the mind preceded actions, and it alters nothing when sometimes men, who have been called upon to act, are unable to account for the thoughts which influenced them. Theory is not dangerous in itself, but it is the tabulating system, which presses the spirit into a Spanish boot, instead of making it freer and stronger. There may certainly be doubts among clever and highly cultured men as to the boundary between legitimate theory and the illegitimate tabulated system, but any one who adopts Clausewitz as the true master and guide in his theoretical studies will surely never go grievously wrong.

My book concerns itself really only with the leading ideas of strategy in the nineteenth century; it touches upon a great number of strategic matters, of course, but it is not a Manual of Strategy. It is deficient in exhaustive treatises on Marches, Combat, and Rest, on Reconnoitring

and Protection, on Supplies, Railways, and Transport, on Fortresses, on the use of River Lines and Mountain Ranges, etc. I have not entered into all these subjects, in order to bring forward more clearly the ever-recurring broad principles (*Leitmotive*).

Lastly, I account for such readers as do not wear uniform, but who, either owing to their professional duties or from pure love of science, wish to inform themselves more intimately on the most dramatic subject of international intercourse—that is to say, on the subject of war. I must tell those readers that I have endeavoured to be perfectly plain. Every not absolutely necessary term, every technical expression which it was possible to avoid, I have omitted, and presumed no more military knowledge than the fulfilment of lawful military service has made the common property of all educated men.

My book was nearly finished when the volume *On Success in Battle (Schlachtenfolg)* was published by the Historical Department I. of the Grand General Staff. In reviewing the strategic designs of a series of decisive battles, this volume has a distinct end in view—namely, it combats those experts who think that they can recognise a fundamental difference between Moltke's and Napoleon's strategy. As I uphold the latter opinion in this book, I will at once advance some general remarks.

It is well known that Moltke's plan of

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campaign against Austria was at the time very adversely criticised in many and partly very competent quarters, and it was originally an absolutely established fact that this plan was altogether unlike anything that Napoleon had done. Opinions mainly differed only in so far as some of his critics granted the Prussian strategist at least extenuating circumstances for his procedure, which was not free from objections, while others condemned him in due form. Even from the ranks of the Prussian General Staff two voices were heard to that effect. Scherff declared, in a tactical-strategic manual, "that as regards the handling of masses of troops for the final object of operations and for the final strategic-tactical victory, the great Corsican hitherto *has not been, and never will be, surpassed*"; and Yorck von Wartenburg, in his description of Napoleon as a General, and in other essays, clearly indicated that, in his opinion, Moltke ranked far behind Napoleon.

This was the state of affairs when General von der Goltz published a book on the conduct of war. He clearly pointed out the characteristic features in Napoleon's and Moltke's mode of procedure, and declared both those different methods as equally justified, and, according to circumstances, also applicable in our time. In a later explanation he started from the point of view that, for instance, Turkish leaders of troops do not yet possess that amount of tactical education,

training, and reliable initiative which is a *sine qua non* for Moltke's method of operation.

Before this explanation was given, General von Schlichting took up the question and maintained that at the present time only one—that is to say, Moltke's—method should prevail, since the great mobility and the freedom of action which is allowed to subordinate leaders in our Army demanded uniformity of thought in the essential points and a uniform training of the mind. This caused a lively discussion in the press which has now lasted for some years.

The new work of the Historical Department of the General Staff means to show us both leaders completely free from methodism, free from every distinct predilection for one or the other mode of procedure, and free from this or that strategic rule.

In the explanations which I shall give in this book I mean clearly to prove the justification for the opposite view as regards Moltke. As regards Napoleon, however, if I am not to review the whole of his exploits in war, I must confine myself to the declaration that the *new* light in which he is to be viewed as a General need not at all be accepted without contradiction. It is not only in decided contrast with the opinions held by his companion-in-arms Jomini and, following his lead, by the whole French School up to the present day, and which also Willisen, Rüstow, Leer, and others have held, it also does

not agree with the opinion of Clausewitz. However great the differences are which separate Clausewitz and Jomini, however much deeper and solid the former's ideas are about the nature of war, about the nature of Napoleon's strategy itself he thinks just the same as Napoleon and all his followers.

But this is not all! Napoleon himself, I am convinced, has on various occasions in no uncertain terms confessed to that method of operation which science had hitherto been wont to characterise as his method. The proof of this we find in Yorck von Wartenburg's work, which, based upon Napoleon's correspondence and upon the same literature as was used in the work *On Success in Battle*, arrives at totally different conclusions from those of the latter. If the demonstrative force of Yorck's book is really to be shaken, we must set to work and thoroughly refute it, and it would be the special task of such refutation to point to the incorrectness of Yorck's arguments wherever Yorck thinks to recognise from Napoleon's words and actions his predilection for a distinct method. So long as this is not done, we are justified in maintaining that Napoleon is the representative of a method which as a matter of principle aims at the closest possible concentration of the Armies in order to deliver a decisive blow with powerful shock tactics. Napoleon was at that time on the whole quite right with his strategy of operating in massed formations; his

immense successes prove this in the most splendid manner. *But if he were living to-day, he would of course no longer act in this way.* He would have surely adapted himself to the completely altered conditions, in the same way as Moltke has done.

I must confess that I have very frequently missed in the book *On Success in Battle* any reference to the altered conditions of the present, especially to the *enormous* increase of fire-effects. These references are made, but not often enough by a long way. We know to-day that Moltke was the very first soldier who had rightly recognised just this change in the fundamental tactical principles for strategic considerations, and had expressed them in terse sentences, and this perception of his was bound to become the starting-point of a new mode of procedure. The Historical Department says in its retrospect: "History always confirms anew the old experience, that original and new ideas are very slow in being universally recognised in practical life." These words are meant to refer to Napoleon and his method of war.

I think that this sentence would much better apply to Moltke!

THE AUTHOR.



TRANSLATOR'S PREFACE

THIS book, I trust, will prove especially useful to all those who are preparing for various military examinations.

I am aware that the German text could have been turned into more perfectly flowing English; but I have preferred, as a matter of principle, to render the author literally, and thus to retain the characteristic form of his sentences wherever possible.

The quotations from Clausewitz, *On War*, I have taken from Colonel J. J. Graham's translation of that author.

I must thank Major Stewart L. Murray, late of the Gordon Highlanders, for kind suggestions and corrections when reading through the manuscript.

KARL VON DONAT.

4, CANNING PLACE, KENSINGTON GATE,
LONDON, W.

April, 1905.

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THE
DEVELOPMENT OF STRATEGICAL
SCIENCE

CHAPTER I

HEINRICH VON BÜLOW

At the threshold of the nineteenth century a highly remarkable book was published—i.e. *The Spirit of the Modern System of War, founded on the Principle of a Base of Operations, and written by a Former Prussian Officer in a Manner easily Understood, even by a Tyro in the Art of War* (Hamburg, 1799).¹ Its author was Heinrich von Bülow, brother of Bülow von Dennewitz, and undoubtedly a highly gifted, but at the same time a very conceited, man, who early quitted the service and vainly sought his fortune in America. He then became a military writer, and after a few years, got into serious trouble with the authorities owing to his reckless and many criticisms. When he wrote this book, which is also his most important work, quite a series of campaigns had been fought against

¹ *Geist des neueren Kriegssystems, hergeleitet aus dem Grundsatz einer Basis der Operationen, auch für Laien in der Kriegskunst fasslich vortragen von einem ehemaligen Preussischen Offizier* (Hamburg, 1799).

the French Republic. During these campaigns the whole mode of warfare, as we now can recognise, gradually changed, until it finally attained that terrible power which fills us with such amazement when reviewing the deeds of the French Emperor. Indeed, the young Buonaparte had already in his first campaign given most signal proofs of unusual talents for great generalship; and although only very scanty news about the events of the war in Upper Italy may have reached larger circles of the public at that time, yet one characteristic of the great French General can hardly have remained unnoticed—namely, his extraordinary audacity and daring, and his relentless endeavours to bring about the bloody decision by battle. This was certainly quite contrary to the usual mode of warfare of the eighteenth century. For we may label that mode of warfare the strategy of positions and occupation of ground, or the strategy of tiring and staying, or we may name it the twofold strategy of the battle and of manœuvring, yet one thing, at any rate, is clear, that such uninterrupted sequence of bloody decisions on the battlefield were absolutely unknown to it. If, therefore, in 1799 a clever man publishes a book about the “spirit of the modern system of war,” the assumption is justified that he had felt something of this new spirit, and wished to make his people acquainted with what he had discerned.

But absolutely nothing of the kind. On the contrary, Heinrich von Bülow made it his task rather to systematise scientifically the ideas of those who looked upon battle as the “remedy

of the desperate,” and thought that the real aim of strategy was to gain the object of war without bloodshed.

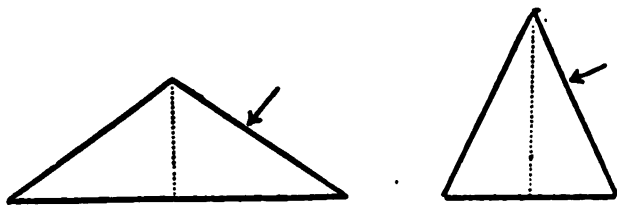
“One ought to avoid battles, and should have recourse to manœuvring.” “If we find ourselves obliged to fight a battle, mistakes must have been committed previously.” “We can neutralise every victory by operating strategically against the flanks and rear of the enemy.” “Those examples, however, show how little effective victorious battles are against superior numbers, how little decisive they mostly are in the latest wars.” “But, besides, it is not at all as depressing to be beaten in modern war as it was in olden times.” “But in our days, as the foot-soldiers only shoot, and the firing lines decide everything, the moral and physical qualities do not concern us at all, for a child can shoot a giant.”¹

I have cited here some of Bülow's sentences which strikingly illustrate his scientific system. This system begins with defining the term *base*. The base is the line joining the safe magazines from which the Army is able to draw its supplies and ammunition when engaged in a certain operation. The lines leading from both ends of the base to the objective form, together with the base itself, a triangle, which represents, as it were, that theatre of war within which the Army is able to draw its supplies and munitions from one or the other magazines at the base. It is of course at once obvious that the communications of the Army with its base is the less liable to interruption or disturbance by

¹ These sentences we find in the above sequence on pp. 176, 263, 107, 260, 106, 96.

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the enemy the longer the triangle's base and the smaller its altitude.



In the one instance, in the low triangle with the obtuse angle at the vertex, the danger to one flank will be little felt, because communication with the base can be safely maintained on the flank farthest from the enemy. In the other case, with great altitude of the triangle and a very acute angle at the vertex, the various lines of communication with the base are so close to each other that the same operation of the enemy threatens them all at the same time, and makes it at any rate very disagreeable for an army concentrated at the vertex of the triangle. This is a truth which cannot be disputed, and if Bülow had been content to use it in explanation of the term base, which he was the first to introduce into science, we could not at all find fault with him. But he did not confine himself to such a simple explanation. He proceeds to argue profusely but strictly mathematically, arrives at the result that an operation can only be carried out safely if the angle opposite the base is at least 60 degrees, and even goes so far as to say that the semi-circular enveloping form of base was the best, because within such an arc the enemy could not take up a tenable position: "He would be in a sac

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that can be choked." Here, again, there can be no doubt that an enveloping base is of great advantage.] We need only think of 1806, when the French forces were distributed before the war from the Lower Rhine to where the Danube leaves Bavaria, when Napoleon's base embraced with a wide arc the western half of Prussia, and when the Emperor had thus a free choice of varied directions in which to attack. The above-mentioned sentence, therefore, might for our present-day ideas be somewhat fascinating, and we could feel inclined to recognise in it that resolution for an enveloping attack which, in case of success, would oblige the enemy to surrender; but if we penetrate a little deeper into the meaning and intention of Bülow, we soon see that he does not at all intend to use the rough means of attacking the hostile army, but always only a menacing pressure on the enemy's lines of communication, and that "choking the sac" means with him only permanently endangering the enemy's supplies.

He rightly, therefore, evolves from those ideas the proposal, after a lost battle—for the enemy may force on a battle, and we may be beaten—to split the beaten army at once into various parts, which retire eccentrically in different directions, in order to stay the victorious adversary and prevent him reaping the fruits of his victory by thus everywhere threatening his lines of communication.

We must here distinctly remark that Bülow does not mean by eccentric retreat the mode of procedure, as it were, when the whole Army abandons

its road towards the heart of the country, say its capital, and gives way laterally, in order either to turn the enemy from that line of advance which must be for the vanquished the most dangerous, or eventually to fall upon the victorious adversary's flank and rear with united forces, if he persists in his advance towards the heart of the country. Naturally no objection could be raised against such an idea. But Bülow repeatedly declares quite emphatically that the eccentric retreat, as he means it, necessitated the separation of the Army into several bodies departing in different directions. And therefore I must also particularly emphasise that it is here not perhaps a question of preparing a retreat *before* accepting battle, in which case the eccentric retreat of several bodies in different directions may serve to secure them the possibility of an enveloping attack at the decisive moment. No; here is meant a running in different directions after a defeat with the fantastic hope of forcing the victor to halt by threatening everywhere his lines of communication with the fractions of the vanquished.

"It is clear from all the foregoing"—and this is the main result of Bülow's inquiries¹—"that it is more appropriate to the spirit of modern warfare to make the magazines and their lines of communication with the Army rather the object of operations than the hostile Army itself. The reason is, because the modern Armies are not self-contained, but must be supplied from without. They resemble therein our contemporaries, who look for happiness from

¹ P. 81.

without and not from within. The magazines are the heart, by the injury of which the structure man, the Army, is destroyed. The lines of communication are the muscles, which, when cut, paralyse the military body. But since these come from the side and from behind, it follows that flanks and rear must be the objective of operations, and this in an offensive as well as in a defensive war. It thus follows that actions, at least frontal actions, must be avoided. In an offensive war we far sooner force the enemy to retrograde movements if we act against his means of subsistence, and consequently, as was stated, against his flanks, than pushing him by force from his position. He will soon find a second one, in which he again makes a stand. In a defensive war we will soon perceive the uselessness of all parallel positions and parallel marches for barring the enemy's advance. There is no position, however strong against frontal attacks, however well secured on the flanks, however well chosen for covering the country, from which we could not be rapidly driven away by operations on our flanks, particularly if the enemy is superior in number. I can therefore boldly write down the rule, although it is new, that one really ought never to conduct a defensive war, but at once resume offensive warfare by throwing oneself on the enemy's flanks and operating in his rear. Even if he is weak, an able General can force a stronger Army to retreat and assume a defensive attitude by attacking his magazines and lines of communications, the more so as one need only approach the lines of operations in order to kill them—that is to

say, to render them useless. It will therefore be the general rule not to place oneself just opposite the enemy, but aside of him."

(This, we may say, is in a nutshell the whole mode of warfare of the eighteenth century, as never described before in all its over-refinement, which has been so often blamed and lamented over. And side by side with it we should hold the following opinion of Bülow on the last five campaigns of the Seven Years' War.¹

"During the latter part of the war the most perfect that occurs in the annals of modern wars are the defensive campaigns of Prince Heinrich in Saxony and those of Duke Ferdinand; also the beautiful movements of King Frederic in Saxony in 1761 to prevent the junction of the Russians and Austrians; further, his beautiful entrenched camps in this campaign, particularly that of Bunzelwitz; finally the beautiful design to force the Russians to retreat by destroying their magazines. The battles of Frederic II. do not deserve in an equal measure the admiration of those who understand war, although the dispositions for them must be praised; for if they could have been avoided, they must be looked upon as desperate attempts to end an unfortunate situation either by death or victory. By death one could have escaped it, but the State would have been destroyed. And imagine what disorder this would have caused in the political system of Europe! For a great Power can as little be destroyed without affecting all the others as a planet can

¹ P. 267.

be removed from its position without disorganising the whole solar system."

Thus even the reproach of cowardice to escape a difficult situation by committing suicide was not spared the indomitable royal hero, who, by his untiring efforts to bring about a decision on the battlefield, was the terror of his enemies. And he is blamed less for the great wrong of endangering his own State than of disturbing perhaps the European balance of power, which, for the cosmopolitan turn of mind of that time, was of more importance than the welfare of one's own country.

From these utterances of Bülow it can be clearly discerned how diseased even the Army system was in a sick State, also the art of war of the old monarchy, just at the time when the Revolution was recovering from its severest spasms and gathering its forces, in order to employ them presently with unsurpassable energy for the overthrow of its enemies. But how great the self-conceit of this antiquated art of war was, how hopelessly it turned in a circle, Bülow's subsequent books furnish us with an overwhelming proof. If he is able to recognise in Buonaparte's exploits of 1800 and 1805 a confirmation of *his* system of war, every possibility ceases to take him in any way seriously; we can only see in him a forerunner of that strange aberration of mind which reigned supreme at our headquarters in 1806, and led to destruction the old Frederician Army in such deplorable manner. Indeed, we cannot do otherwise than make, among others, that author, who was so much ^{at} that time, directly responsible for

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the sad collapse of the Prussian State. In one point, and only in one, did Bülow really understand the signs of the time: he demanded as a principle the employment of the "extended order," and this not only as a permanent accompaniment to the fight in close order, but as an established tactical formation of frequently decisive importance. His proposals are somewhat singular, especially when he wants to adopt for the Infantry the curving motions of Cavalry scouts, in order to diminish the losses under fire in advance and retreat. But to this again is opposed his demand that the skirmishers should approach the enemy crouching, and shoot and load while lying down, which with muzzle-loaders was at that time somewhat difficult, and that he quite expressly based this demand on the necessity of *cover*. Real courage was wanted to advocate this in the Prussian Army, which was so proud of its art "to attack *fièrement*" in line or echelon, and whose overwhelming majority of officers completely rejected the modern skirmishing "because it nourished the natural scoundrel."

And how strong this feeling was at that time we can judge from the fact that even to-day, the time of long-range, rapid-loading rifles, this feeling has not quite died away. It still lingers in those tacticians who, with a slight shrug of the shoulder, talk of "being afraid to lose" as soon as one emphasises the impossibility of conducting the Infantry attack successfully in one single advance also over an open plain.

CHAPTER II

THE NEW TACTICS OF THE FRENCH

ONE of the most effective weapons which the rejuvenated French State used, quite distinct from the old monarchies, was an entirely different view in regard to the employment of troops in battle. We must see clearly how these views gradually took shape.

It is generally assumed that extended order and the transition from line to column tactics was more or less forced upon the armies of the Revolution, because the bad training of the levies was not equal to the difficult evolutions of the line-formations and to the still more difficult volleys by squads, by half or whole battalions. This inability of the Volunteer battalions to carry out the exceedingly intricate movements of the drill of that time had doubtless a great deal to do with it; but the root of the matter lies certainly deeper. Already, soon after the battle of Rossbach, the French Army developed peculiar tactics, and quite distinct from those of its renowned adversary, the most prominent advocate of which was the Duke of Broglie, the victor of Bergen (April 13th, 1759). Broglie was undoubtedly one of the first who clearly recognised the value of skirmishing. He

gave to each battalion a light company, and expected his whole Infantry to be able to fight in extended order. We must here bear in mind that the French Army, even in those days, was imbued and animated by a national spirit quite unknown to any of the German Armies, and had therefore not to reckon with anything like the amount of desertion which the Germans, and especially the Prussians, whose Army was overflowing with foreigners, had to reckon with. There was, therefore, good reason for France to discern much sooner the value of a soldier's self-reliance, and to expect him to be more than a mere automaton.

In addition to the early recognition of the great value of skirmishing in all close and undulating country, we find at the same time a much more frequent use of the column, which in the Prussian Army then was not known as a formation of any tactical importance, but only as a passing stage to change into line from open columns of sections, which was the real formation for manœuvring. If, while in motion, it was desired to form line from open column of sections to the front, in the direction of the march, it was a favourite mode of procedure with the Prussians to let the battalions first form close column, then to deploy from close column of sections into open column of companies (more correctly "divisions"), from which, after renewed closing, these could deploy into two half-battalions behind each other, and these finally into line. But in the French Army Marshal de Saxe had taken hints from a much-read author, the Chevalier Folard, and introduced, as far back

as the forties, a column of double sections—quite a battalion quarter-column—as an appropriate formation for manœuvring, and occasionally for attack. The Duke of Broglie frequently used it in a most effective manner. In the battle of Bergen he placed his first line according to the ground—partly in line, partly in skirmishing line with supports; but the whole of the second line he kept ready in two groups of battalion columns, with the object of delivering after the defence that counter-attack which gave him the victory.

The celebrated military author Guibert held the opinion, in the seventies of the eighteenth century, that the line must certainly still be for the Infantry the normal and fighting formation which it was chiefly to employ, but that close column was frequently useful for manœuvring and *attack*, and he utters already the sentence so familiar to us to-day, that the leader must be left great freedom in the choice of his means. Guibert, it is true, opposed with much warmth a still more advanced school, which wanted to make the column the normal tactical formation (*défence du système de guerre moderne*), and distinctly opposed an idea which afterwards was held in such high honour—namely, that the columns were means for breaking through the centre of the opposing line. His chief tactical book, *Essai général tactique*, was a considerable advance compared with the former line tactics. As far back as 1704 the employment of skirmishers—to a limited extent, it is true—in front of every battalion advancing towards the enemy was generally introduced into the French Army;

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and Guibert and other Frenchmen write with perfect lucidity about the combined action of skirmishing lines and battalion columns as a formation suitable for keeping under fire and for using *any ground*, and that it therefore meant, particularly *for the attack*, a considerable increase of power.

Hitherto, as tactics were carried out, it was exclusively the defence which was able to obtain any advantage from ground. In the defence two long lines of battalions deployed into line were placed on heights, the slopes of which a cautious General would like to see as steep as possible, while the more pugnacious leader would be satisfied with gentler slopes. An obstacle in front was as a rule welcome, in order to render the advance of the assailant more or less difficult. Both flanks if possible, but at least one, had to be protected against envelopment by perfectly impassable or almost impassable ground. The light Artillery attached to the Infantry was stationed in the intervals of the battalions; the heavy Artillery was placed on favourable eminences, so as to command the ground in front to a great distance. Finally, a portion of Infantry and Cavalry was retained, in order to act according to circumstances. But when a flank was not secured by ground, a great portion of the Cavalry had to be placed from the outset on that flank.

The attack—as a rule, Infantry in the centre in two lines and Cavalry on both wings in similar formation—was meant to bring the whole Army as one solid unit moved by word of command on to

the enemy's position. It was only too natural that every inequality of ground—every bush, every house, every ditch, and every hill, however low—was looked upon as an obstacle for this exceedingly difficult manœuvre, and that the assailant preferred best a battlefield on a perfect plain. This was the prevalent opinion, and most prevalent of all was it in Prussia, because only in a plain was it possible to carry out those tactical evolutions on a grand scale which were so much insisted upon in Prussia. The unusual skill of the Prussian Army in evolutions ensured the great King on the day of Leuthen the possibility of deciding, only when within cannon-shot of the enemy's centre, whether he would attack his adversary's right or left, and chiefly owing to that reason was the whole battle such a splendid surprise.

And further, the assailant could only bring up his Artillery on level ground to within effective range if the weather was not too unfavourable. The Artillery, in the middle of the eighteenth century, was generally still very heavy; the barrels, which, owing to ignorance, were much too long and too thick for the required effect, were the cause of so much dead weight that even medium calibres were only with difficulty moved across country and that every gradient was a serious obstacle for them.

Those were the reasons why the passive defence, in a somewhat well-chosen position, had obtained a real and important superiority over the attack, and this superiority had become the determining factor from which the whole art of war of that period can logically be developed.

And now during the last thirty years of the century French military authors come forward and preach with spirit and professional knowledge that all must be different in future. Swarms of skirmishers followed by columns are to cross those tracts of country which were difficult or altogether impassable for the line, and on which the defence was wont to rest its flanks. Swarms of skirmishers followed by columns are to adapt themselves to the ground in front of the enemy's position as well, in such a way as to obtain cover from the distant artillery fire of the defence, and thereby be able to wait, without too many losses, for the moment when it appears possible to carry out the assault. And, finally, columns are to make it possible at the decisive moment to throw an overwhelming superiority of numbers, the fourfold, sixfold, tenfold number of Infantry, on that point of the enemy's line where the General intends to deliver the decisive blow. The compact column picks up the thread of the long-forgotten Greek phalanx, of the wedge of the old Teutons, and of the "Gewalthaufen" of the Landsknechte (Lansquenets); the column knows the weight of its physical blow, and means to break the thin hostile line. Those authors know very well that the fire of the skirmishers assisting in this blow can only have insignificant effects at such decisive moments, because those skirmishers have to clear the front of the columns and are confined to the intervals between the columns. But they consider, firstly, that up to that moment the skirmishing action had a most useful task to perform; and, secondly, they

count upon the moral effect which the steady advance of the densely massed Infantry must certainly make upon the adversary. For these more modern tacticians, unlike so many authors during the time of line tactics, fully appreciated the great value of *numbers*, and considered it a most important task for a leader to mass superior numbers at the decisive point.

But still more was expected from the Artillery of the attack, which they meant to employ in quite a new and original manner. A more modern school of Artillerymen had now at last succeeded in getting rid of all superfluous weight and making considerably more mobile the heavy and medium field-guns without decreasing their fire effect. It was now possible to bring up even twelve-pounders where formerly hardly an eight-pounder could be got; and already, at the end of the seventies, it was suggested to *mount* the gun-detachments, so that the guns might move at a trot or even at a gallop. Du Teil, however, who made this suggestion, had, in his work on the employment of modern Artillery, above all applied Vauban's theories on the concentration of Artillery fire in siege operations to field operations, and the introduction of Horse Artillery (nine regiments) in 1712 to 1794 afforded a very effective means to put these theories into practice.¹ I will quote here some of du Teil's sentences:

"One must concentrate the bulk of the troops

¹ Compare the German translation of Malherbe of 1783, a Lieutenant in the Saxon Artillery, pp. 60, 63, 97, 100, 107, etc., and the quotations in Colin, *L'éducation militaire de Napoléon* (Paris, 1800).

I make the following remarks aient the mounting of the gunners as proposed by du Teil: Gribeauval's Field Artillery, models of which

and a superior Artillery on that point where one wishes to defeat the enemy, while one must deceive him on the other points." "The Artillery will gain superiority over the hostile Artillery if it invariably concentrates its fire on the decisive points." "The Artillery must be increased against those points which decide victory; thus it gains decisive results." "When attacking a position, it is only a question of concentrating one's fire and efforts upon some of its weak points, in order to force the enemy to evacuate it." "The moment when troops are to act is determined by the havoc which the Artillery will have caused. If the redoubts are breached, the hostile troops demoralised and beaten, the victory, which Artillery has prepared, only depends then on the valour of the assailant, etc." Du Teil further explains that the larger calibres and the howitzers of the assailant

can be seen in the Berlin arsenal, had no limber boxes. A small portion of the ammunition was in a little gun-carriage box, which could be placed between the brackets and close to the trail; as a rule, one waggon followed each gun immediately into action. Gun-carriage, box, and ammunition-waggons had coffin-like lids, upon which no one could sit. The gunners could have "mounted" only the off-horses of the teams, and du Teil quite distinctly says: "La plupart des canonniers monteront sur les chevaux" (Colin, pp. 79-80), which is not clear with the translator, as he only speaks of mounting. It must further be noticed that the connection between gun and limber (the limber pin being on the axle) was very rigid, so much so, that the gun was unlimbered and the drag-rope used when moving on uneven ground. Du Teil only knew the use of the drag-rope when fastened to the trail of the gun-carriage; at a later period it was preferred, when advancing, to fasten the drag-rope to the front end of both brackets closely below the barrel, so that the gun was pulled with the muzzle pointing towards the front and the trail dragging after.

Du Teil minutely explains that it was possible for a great number of guns in line, with the same intervals as in action, to cover with drag-ropes at a gallop with the gunners mounted 200 to 300 toises—i.e.

should make it their main task to destroy redoubts and buildings, and that also the light guns ought never to hesitate to enter upon a contest with the heavy guns of the defence; if they had approached at a gallop to within convenient range, the 4-pounder could unhesitatingly take up the fight with a 24-pounder because the 4-pounder could fire three to four times more rounds than the 24-pounder in the same time.

The representative of those views had belonged to the regiment la Fère, which he left shortly before Buonaparte received his first commission in that same regiment, and his elder brother was Commandant of the Military School at Auxonne, where the young officer received his real professional training. Du Teil's book created besides quite a sensation at that time.¹

450 to 640 yards. At the halt the limbers had to wheel about, the guns to turn, and at once to get into action.

As the 4-pounder and 8-pounder guns as well as the ammunition-waggons were but four-horsed, only four men per gun could mount the gun and waggon teams.

Lastly, I remark that a very interesting essay on the French Artillery *matériel* in the *Revue d'Artillerie* of March, 1890, maintains that the mounting of the gun-detachments of the Field Artillery had never occurred in the Emperor's time. The rapid movements had always been confined to such short distances, that the detachment was always able to keep up at the double. But as the essayist evidently does not know du Teil's work, he certainly does not mean to contradict a conclusion based upon du Teil, but only to express an opinion derived from the regulations then in use, which nowhere make mention of the mounting of the off-horses by the gun-detachments. The war records of that period are, as a matter of course, so defective that the mere non-mentioning of mounting is not sufficient proof against the possibility of its ever having occurred, and the historical fact that the rapid formation and advance of an extended Artillery line had repeatedly produced most decisive effects upon the enemy speaks for the assumption.

¹ Compare Colin, *L'éducation militaire de Napoléon*, an excellent book, which I found perfectly reliable in everything which I was able to test.

Buonaparte and his afterwards so celebrated Artillery Generals were therefore early instilled with the idea that Artillery was an enormously powerful offensive weapon; mobility, surprise, became their catchwords, and Napoleon thought only of Artillery when he afterwards uttered the sentence, "Le feu est tout, le reste n'est rien." It is only because it was intended to make such thorough use of the Artillery that the old Greek phalanx as a practical formation for the decisive blow by Infantry had a chance to revive.

If those are the purely tactical outlines of the new movement which in France already before the Revolution cast off the old forms and declined to copy any longer the Prussian pattern, we have now also to consider some other features which somewhat encroach upon the domains of strategy.

At the time of line tactics the usual, as it were the normal, state of both opposing armies was that each encamped with its main forces concentrated in a position suitable for immediate defence. About one to two days' marches behind the camp was the field bakery; two to three days' marches behind the bakery was the magazine, generally a fortress in one's own country, otherwise a temporarily fortified post. In order to secure the communications from the camp to the bakery, and thence to the magazine, against hostile raids, it was as a rule necessary to send a party to both the right and left. These bodies of troops, as distinct from the "Armée," indifferently called "corps" and "detachments," the prototypes of our present-day flank

guards, which quite wrongly still find such favour, were of course greatly exposed, in spite of their liberal appointment with Light Cavalry, since, being comparatively widely separated from the Army, and being for some considerable period isolated, an enterprising enemy could easily surprise and crush them with superior numbers. When Frederic the Great in 1768, in his *Military Testament*, wrote his ideas about the future mode of war against Austria, he in the first instance laid it down that one might expect always to find the Austrian Army in a very strong position, and that his aim would not be to attack and defeat them there, but that he would also well choose and secure his own camp: "I would very carefully fortify it, and direct all my efforts thoroughly to beat the enemy's detachments. For if you annihilate one of his detached corps, you create disorder in his whole army, as it is much easier to crush 15,000 men than to beat 80,000, and, while venturing less, you almost obtain the same result. To multiply small successes means gradually amassing a fortune. In the course of time one grows rich, one does not know how."

It was probably the constant danger threatening those detachments which induced the Duke of Broglie to adopt already in the Seven Years' War a strategic tactical measure which again bore a germ of great progress. He started encamping the actual Army no longer in one body in its fighting position, but assigned separate camping-grounds to its various divisions, which hitherto were only such in name, and to extend them along

about the same lengths of front as formerly used to be occupied by the Army *and* the two separate corps or detachments, and which, as a matter of fact, would have to be occupied or commanded with certainty, if communication with bakery and magazine was to remain secure against hostile enterprises.

It was, of course, most essential, when camping in this manner, that a division, in case of attack, should be able either to maintain its strong position long enough for sufficient reinforcements to arrive, or to retire in time, if needs be fighting, upon the centre of gravity of the Army. At any rate, measures had always to be adopted so that the rapid concentration of the Army for battle was ensured, and that the increasing extent of front did not lead to that separation of the Army into a great number of single posts, which is known and condemned as the cordon system. Guibert thoroughly argued those points, and most urgently warned against the permanent character of those customary detachments, and demanded that the extension of the Army should be subordinated to circumstances, and could therefore never be the same. But before a battle it would always be necessary to concentrate, if the defender did not from the outset contemplate an attack with one of his wings against the flank of an assailant advancing towards the defender's centre. Guibert held the opinion that the superior talents of a great captain must and will become apparent just on those lines of suddenly uniting hitherto separated divisions.

Another distinguished contemporary, Bourcet,

who had written an essay on the principles of mountain warfare, occupied himself particularly with the natural limits of extension, and arrived at the conclusion *that a day's march between centre and wings is the correct standard.*¹ If we finally add to this that Guibert urgently demanded that we must be less dependent on magazines, that we must live more upon the country, and that war must support war,² we have all the elements collected from which Buonaparte, as a matter of fact, formed his method of war.

Guibert's first book, *Essai général de tactique*, of which we know for certain that Napoleon knew and appreciated it, contains astonishing glances into the future. The author talks with enthusiasm of the great ascendancy which a mobile Army on the offensive ought to have over an Army of that day in a strong defensive position. He shows that one does not attack, but turns, positions which are too strong in front; that even during the battle one is still able to deceive the adversary for a long time about the real point of attack, and thus to derive advantages by one's own skill; that mobility guaran-

¹ Bourcet's essay has not been printed; Colin also saw it only in manuscript. But such copies of manuscripts and abstracts are said to have existed in great numbers, as Bourcet was for five years Director of a kind of Staff College. Colin assures us that du Teil must have known Bourcet's essay, and somewhere, where du Teil talks about an excellent treatise on mountain warfare, "the publication of which was as necessary as it was useful, and which would be exceedingly instructive for the military profession," he evidently points to Bourcet (compare translation, p. 140). Still more plainly, by mentioning the name, speaks Guibert, when he says that the publication of Bourcet's essay on mountain warfare was urgently desired. Colin thinks therefore quite rightly that Buonaparte must have known it as well.

² Guibert, *Œuvres militaires*, ii. 289 and 287-300.

teed the maximum chances of success; that by a *new* mode of warfare the adversary may be surprised and stunned.¹ He has in his mind a mode of warfare when the whole people, rejuvenated by a better organisation of the State, backs its Government and fights with devotion for great objects. While expressing his highest admiration for Frederic, he unfeignedly despises an Army composed of mercenaries, vagabonds, and foreigners, which for this reason could never show any vital strength. Long before Frederic's death he predicted that Prussia would in all likelihood sink from the position she then held, and probably have to pay dearly for a few years of glory.²

And not herein alone did Guibert prove himself a man of comprehensive and prophetic views. Discussing the difference between theory and practice in his second military work, he champions the eternal right of science, and confesses that even the most extensive theoretical knowledge would not guarantee any practical success with certainty. He then continues: "There will come a man who perhaps till then was hidden in a crowd and in obscurity—a man who had never made a name by words or letters, but who thought much in silence; a man who perhaps did not know his talents, who only becomes aware of them when exercising them, and who has studied very little. That man will seize those ideas, his opportunity and his fortune, and say to the great man of theories what the practical architect said to the talking architect who addressed the

¹ II. 251-4.

² I. 91.

Athenians, 'What my rival has proposed to you I shall execute.'"¹

This, as Colin remarks in his work on the military education of Napoleon, was really a prophecy for the appearance of a war-god, who was not long in coming; and if Buonaparte had also read those lines, they must have made upon him the deepest impression.

Buonaparte took his ideas from the teachings of Guibert, du Teil, and Boureçet; but from the very beginning of his generalship he enlarged upon them in a most decisive manner by his endeavours to attack by surprise one portion of the enemy's forces, and then drive it in a direction where it could never unite with other forces. This is, of course, nothing new or unheard-of in the art of war; the barring of the enemy's line of retreat, we may be sure, is one of the eternal principles which have been effectively tried for ages. Here we only wish to emphasise that the frequency and continuity of the application of this principle was one of the signal traits of this unusually bold and venturesome General, whose great ambition found its highest satisfaction in the solution of the most difficult problems. This predilection for barring the enemy's line of retreat is already distinctly visible in his campaign of 1796-7 and of 1800; but it was the campaign of 1805 which, carried out on the grandest scale, with masses never seen before, and with a rapidity and vigour which was doubly astounding with such masses, showed in most striking relief this predilection of Napoleon.

¹ IV. 74. The anecdote of both architects is in Plutarch, *Annals for Political Life*, as Professor von Wilamowitz kindly tells me.

And while he is moving down the Danube after the first decisive blow in this splendid campaign in order to plant his eagles on the ramparts of the enemy's capital, some one from the ranks of his Army publishes a work that makes the idea which at that precise moment is carried into execution the starting-point of a new theory of war.

CHAPTER III

JOMINI

Traité de grande tactique ou relation de la guerre de sept ans, extraite de Tempelhoff, commenté et composée aux opérations des dernières guerres, avec un recueil des maximes les plus importantes de l'art militaire—such was the title of the new book which Jomini, a major at twenty-six on the staff of Marshal Ney, had published in Paris in the autumn of 1805, and which he also handed to his Emperor and master.¹ When Napoleon had this book read to him during the peace negotiations after the battle of Austerlitz, he suddenly exclaimed, "And people say that times are not progressing. Here is a young *chef de bataillon*, and of all men a Swiss, who teaches us things which my professors never told me and which few Generals understand. How could Fouché allow such a book to be printed! This is giving away to the enemy my whole system of war!" And about thirteen years afterwards at St. Helena this past master in the art of war characterises the book as unique, and lays stress upon the fact

¹ In the second edition the title was changed into *Traité des grandes opérations militaires, etc.*

that he had not known it when he designed and won the campaigns of 1805.¹

A more striking testimony of the value of Jomini's book cannot well be conceived. The young author had at once completely understood his master's new methods of conducting war, and the principles underlying his actions; he summarised them in a manner to show their mutual dependence and to serve as a guide for others. In like manner, as Bülow, whom he knew and appreciated, but whom he also in many points ardently combated, he wanted his book to be looked upon as a system comprising the planning and conduct of war in broad outline. But in his system that faint-hearted art of threatening by manœuvring, which is advocated by Bülow, no longer appears; Jomini's system is the use of force with the utmost determination.

Whenever his available forces allow him to do so, a General, according to Jomini's first principle, must seize the offensive and permanently retain the initiative, forcing the enemy thereby to conform to his actions. Annihilation of the hostile Army in battle and pursuit is the only guiding star for all his military thinking, and he directs his observations above all to the mode in which those forces must be employed and moved in order to gain this object in as complete a manner as possible. Jomini, too, means to lead his Army in the direction of the enemy's communications.

¹ As regards the first sentence, compare Lecomte, *Le Général Jomini*, p. 29; as regards the other, vide *Napoleon's Thoughts and Recollections*, by Gourgaud, p. 256.

Not at all, however, with the object of perhaps threatening or stopping his supply transports, but for the infinitely more effective reason that the hostile communications are naturally, as a rule, also the enemy's necessary lines of retreat, and that he wants to cut these lines, beat the enemy, and thus completely annihilate him—*i.e.* to capture or altogether disperse him.

Jomini repeatedly expressed himself to the effect that the fundamental principle of the art of war is the application to strategy of the classical tactical flank attack of Frederic the Great in the battle at Leuthen. Even in his last theoretical work, which appeared under the title of *Précis de l'art de la guerre* in 1837, and, as latest edition, in 1855, he returns to this idea, and calls it the key to the science of war.¹ This means, therefore, the strategical assailant is to lead the whole of his forces, *without endangering his own communications*, obliquely against one of the wings of the enemy in such a manner that he envelops him, and, if victorious, forces the whole hostile Army from its lines of communication and retreat. But if the enemy has the whole of his forces disposed in the theatre of war on a very extended strategical front, another procedure would be more appropriate. The offensive would then have to be directed against the centre of the enemy's front, in order to separate the various parts and to beat them in detail. But Jomini most distinctly disapproves of the endeavour to turn both flanks of the enemy with separate

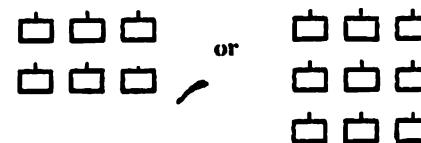
¹ I. 16.

bodies from opposite directions, unless there is exceptional superiority in numbers, and thus no danger of a mishap to each part. To the above-mentioned demand, not to endanger one's own communications when turning one of the enemy's flanks—that is to say, to retain one's own communications perpendicular to the front—I must here at once remark that this demand can only be fulfilled if the strategic offensive can start from a base which envelops the theatre of war. When this is not the case, it is hardly possible not to expose one's own communications temporarily, or even not to abandon them. A cautious General will then take timely care to be able to open, as soon as possible and as efficiently as possible, a new line of communication in that direction, in which he eventually will have to fall back. Bringing up ammunition supplies, reinforcements, etc., may in some measure be secured by such a change of base, but the chief danger of losing the nearest line of retreat is thereby not removed.

As regards the technical arrangements of the strategical movement, it is Jomini's intention to move with the Army so closely concentrated and in such deep formation that it is ready for battle in as short a time as possible—*i.e.* at the most in two days—not only in the direction of its march, but also towards any flank. The most suitable form in which to move he holds to be the four-sided figure, the front and sides of which are about equal, *le carré stratégique*,¹ or what Napoleon in October, 1806, called a battalion square of

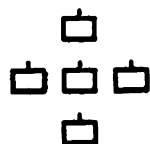
¹ *Prcis*, chap. iii., art. 20.

200,000 men. If the main body of the Army is divided into a centre and two wings, which march on parallel roads not more than a day's march apart, and if each of these bodies is again subdivided into two or three large bodies—*i.e.* army corps or divisions—which follow each other a day's march at the most, that form would fulfil the above requirements, and represents, so to say, the normal strategical order, from which the line of battle can be formed by concentrating or deploying on any portion of the Army.



I have drawn here the figure to show the system. We must imagine either one single advanced guard in front of the whole Army, or an arrangement which Jomini prefers, several advanced guards, one for each of the leading army corps or divisions, and in both cases with plenty of Cavalry. It must further be noticed that, in the opinion of Jomini, when the number of organised units, army corps or divisions, decreases, the place of the units which follow in second line should be in the first instance behind the centre, in order to fulfil their object as a reserve under all circumstances with certainty. If one advanced guard for the whole Army is considered necessary, and if the number of units is small, the strategical square may then assume

the following shape, which fulfils also the fundamental requirement of employment towards front or flank in equal measure. Jomini further firmly emphasises that it is not only a question of concentrating masses at the decisive point, but that we must also understand how to fight always dexterously. He thinks that with good troops the attack is the best mode of action. But we could also successfully await the enemy defensively in a well-prepared position, with the object of assuming the offensive at the proper moment. The pure passive defence which flourished for



such a long time Jomini does not recommend in the least.

These main principles conclude with an acute accentuation of pursuit, and with a reference to the moral element being the main spring of power of our own and the enemy's troops, and that it is for us to raise ours and destroy the enemy's.¹

The gist and chief contents of Jomini's system fully deserved at the time of their publication the approval which the great Emperor of so many battles bestowed upon their first conception; but

¹ A lucid summary of his main principles is given by Jomini in his fourth volume of the second edition of *Traité des grandes opérations*, chap. xxiv.

unfortunately they are wrapped in a cover which is highly disadvantageous. Jomini was evidently so dazzled by the highly mathematical character of Bülow's strategical book that he thought it necessary to give a similar colour also to his explanations, and in this he failed. Jomini had no talents whatever for mathematics, and his partiality for mathematical expressions leads him therefore to ever-increasing want of clearness. Bülow called his own system that of a base; Jomini wants his to be known as the *system of lines of operation*. There is very good sense in this; it puts clearly into words how much, in recent times, movement had become the decisive factor in the conduct of war. It is hardly necessary to explain what is meant by a line of operation; it is the *direction* in which the whole Army moves. It is also, we may say, self-evident that this movement need not be confined to a single road, but can be carried out on several adjacent and almost parallel roads. But when Jomini repeatedly applies the term "line of operation" to large districts of the theatre of war, and when he distinctly says that the line of operation is a surface, we may well feel annoyed at such unscientific language. And of such instances there are a great many—*e.g.* the distinction between territorial lines and manœuvre lines, the contrast between two lines and a double line, the introduction of the term of deep lines and accidental lines (*lignes accidentelles*, "which only a comprehensive and active genius is able to discover"); or further, the difference between fronts of opera-

tion and strategical front, the dragging of a river course into the category of "strategical points," the use of the expression "divergent points," and so on. The manner also in which Jomini illustrates his considerations of offensive battle-formations by figures is far from affording any real instruction.¹

I refrain from entering here into the great mass of all kinds of technical terms with which Jomini has embellished his system of lines of operation, and confine myself to the derivation and explanation of the one distinction which will ever remain connected with his name, and with which he has rendered to science undoubtedly an equally great service, as Bülow had done with his conception of the term "base." But at the same time I only consider here the spirit, and not the actual words of his explanation, because it is not at all distinguished by lucidity and acuteness of thought. I mean the distinction between interior and exterior lines of operation.

We remember the principle advanced by Jomini, that with very great extension of the enemy's front—in other words, when the hostile forces are distributed in several more or less independent groups of Armies—one's own operations would be best directed against the centre of the enemy's position, in order to pierce it, to separate the various parts of the adversary, and then to beat them in detail (*en détail*). If we imagine in such a case the hostile

¹ For classification of lines of operation, *vide* fourth chapter of vol. ii. of the first edition, *Traité*, etc., or art. 21 of *Précis*, etc., of 1835. For battle formations, *vide* art. 31 of *Précis*, etc., of 1835.

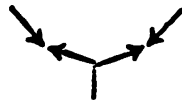
army groups or army portions not immovable on the same spot, but also in forward movement, we get the following picture in its simplest graphic outline:



i.e. on the one side an Army closely concentrated advances on *one* line of operation into the interior space between the two hostile lines of operation; and, on the other side, two portions of an Army move forward in such a manner that the directions of their advance encompass from without that of the adversary. The one Army, advancing united, moves therefore on the inner line of operation; the other, advancing divided, has chosen the exterior lines of operation. The latter we must, of course, imagine as being concentric—at least from that moment when the concentrated advance of the enemy is clearly discerned, and when it becomes a question of uniting all forces on the battlefield. But we must always bear in mind that the main directions of advance in all theatres of war are always prescribed by the directions of roads, which are never perfectly straight lines.

According to the above simple picture, we must use the term "inner line of operation" only in the singular, because it is meant to indicate that one united Army is marching closely concentrated towards a point half-way between the two portions of the hostile Army. But during the ensuing actions the Army which had advanced

united will have to move about, as a rule, from one side to the other—that is to say, the party operating on the inner side will now alternately advance in two opposite directions; and simultaneously, according to circumstances, a small party will have to be employed to guard one side, while the main body deals a blow on the other. If our considerations are chiefly confined to this period of dealing blows excentrically in two directions, it is certainly very natural to talk of a plurality of inner lines upon which the decision is brought about. The graphic outline will then assume the following shape,



which must be considered as a development of the previous picture.

Now, Jomini was not satisfied with discussing scientifically the contrast between interior and exterior lines of operation, but he at the same time warmly and ably defends the thesis that the inner line possessed an almost unqualified superiority over the outer lines, which could only be doubted when both forces are of quite unequal strength. And, indeed, we must call Napoleon's exploits an almost unbroken chain of successes in the use of the interior line. The need of covering one's own territory against hostile enterprises, which existed at all times and under all circumstances, had caused the military art of the old monarchies to adopt a very broad front as a rule for strategical

deployment, and Napoleon's principle "to advance in mass"—as he himself called it—was generally best applied in selecting the centre of the hostile front as the objective. At the same time, when transmission of intelligence during the operations was still exclusively dependent on the capacity of a horse, it was permissible to reckon with certainty upon the impossibility of really proper co-operation of widely separated army portions or corps. The news from one side to the other, the orders hither and thither, could in those days hardly ever arrive in time for acting in harmony with the constantly changing situations in war. Napoleon himself said at the end of his career as a General: "*To operate from widely different directions without intercommunication is a mistake which is usually the cause of another. The detached column has only orders for the first day; its operations for the next day depend on what happened with the main column. It therefore either loses time in waiting for orders or trusts to good luck.*" And at another time: "*It is an axiom to keep the columns of an Army always united in such a manner that the enemy cannot push between them.*"

As soon as Napoleon once got between two army portions or corps, their fate was sealed as a rule. He deceived one of his adversaries by a weak but resolutely acting detachment, and fell upon the other with united forces in such a determined manner that the enemy was unable to resist. If this one was beaten, he turned against the enemy whom he had hitherto only held in check. In this way he began in 1796, and

.....

the same principles in various campaigns there. In 1806, 1807, spring campaign can be called which Jomini has in mind of one of the combined Army. The kind is 1806.¹ But in 1805, which is in that light, must be the object of gaining the reach of the Russians.

From the outset a *two-fold* of exterior lines, when some extent as he liked, considered the funda- When he acted concern- the course of operations the favourable oppor- that moment to aim at

¹ handed to Marshal Ney, his memorandum on what he considered the best campaign; in it he recom- mends from Franconia in the direction of the inner line, because he counted on the Emperor was at all events therefore the above interpretation for 1806.

less one more indication that he has been frequently over-rated. In such Army in South German towns, and, already on September 15th, the rapid advance at least of his own army was the Emperor's intention (*vide* *Circulaire de Napoleon, 1806*, p. 10).

the capture of the nearest and very much weaker adversary. And when he occasionally acted similarly, as at Preussisch-Eylau, at Landshut-Eggmühl, and at Bautzen, he merely took advantage of accidental circumstances in a manner which led most rapidly to an effective employment of the forces; he was, of course, far too much a realist and too little a slave of a definite form to let slip clearly tangible successes for the sake of that form.

It is beyond the province of this book to prove the correctness of this view by marshalling a long series of examples. For that purpose I need only refer to Yorek von Wartenburg, whose book *Napoleon as a General* is entirely one long proof that this was really the opinion and invariable practice of his hero. Yorek's testimony is, at the same time, the more convincing as he is well aware of the many changes in the art of war since the days of the great Corsican, and as he has surely, only after many doubts and hesitations, arrived at emphasising again and again the inherent superiority of Napoleon's, or rather Jomini's, system.

I have used hitherto the term of *piercing the centre* only in its strategical sense, and meant by it that operation of an Army which enables it to arrive between two hostile Armies with the object of striking alternately in both directions. But here I must add at once how very closely the purely tactical wedge-like penetration of the centre of the enemy's position is related to the nature of an operation on the inner line. *Rapidity* in moving

a central mass to and fro between several adversaries is a *sine qua non* of success; for if the separated enemies are given sufficient time to arrive at an understanding, they will finally arrive at united action. But if we want to be rapidly victorious in battle, the frontal attack against the centre of the enemy's line will in many cases be a specially useful means, simply for the reason that his flanks will rest on strong points or be considerably strengthened by entrenchments. The tactical penetration of the enemy's centre, however, always presents an immediate and decisive success; it makes a powerful impression upon the hostile Army, and prevents for a long time re-establishment of order in his ranks. It thus allows the victor to apportion comparatively weak detachments for pursuit, and to turn a maximum of force in the direction of the still unconquered adversary. Napoleon's *partiality* for tactical penetration of the centre, which cannot be denied, is thus a logical sequence of his strategical train of thought, and thereby perfectly intelligible. And for that purpose he originated formations which appear to us to-day, after the enormous improvements in firearms, as downright monstrous, which, however, at that time may have been possible, though the tactician cannot look upon them at all as the ideal expression of the inherent idea. A divisional mass of eight to ten battalions in line, each in three ranks, behind each other in close order, can only be compared with the antique Greek phalanx, and even surpasses it in depth and equals it in clumsiness. In four such masses Erlon's Corps

advanced against the English lines on the day of Waterloo; yet even this did not embody to its fullest extent Napoleon's ideas of how to penetrate the enemy's line as he was wont to do in battle, for the intervals between the columns were so great that each division could have deployed to twice its front.

On the day of Wagram, where some of the Austrians opposed him in battalion columns, the Emperor ordered five Infantry Divisions (fifty-six battalions) to be joined into three masses of about double battalion front, closely behind each other, in order to pierce the enemy's line with the heavy blow of a phalanx which was eighty to a hundred ranks deep. At the assault of such a tremendous column (*Gravelthausen*) the Infantry firearm was, of course, absolutely of no value; the thirty thousand combatants could just as well have been armed with pikes as with flintlocks.

For our present considerations it is here interesting to know that Jomini embodied in the later editions of his theoretical work most variegated patterns of dense mass-formations of Infantry, and that in the edition of 1855 there is still that divisional mass of battalions in line closely behind each other which is altogether the densest formation in which such a body could be drawn up. Though this formation came to grief at Waterloo under the fire of the English lines, and though Jomini repeatedly remarks in a general way that Napoleon had gone too far in the employment of mass-formations (*ordre profond*),¹ yet he cannot

¹ *Précis* i. 115; ii. 223.

make up his mind to repudiate them completely. He contents himself with calling those formations somewhat clumsy, and giving the preference to a line of battalion columns with small intervals. Only in an addenda, composed after the battle of the Alma, did Jomini arrive at the conclusion that the formation of particularly large and deep columns was now perfectly impossible owing to the rifle (muzzle-loader). Yet even here he lays once more stress upon one main principle of his whole system—namely, *that all would depend on throwing the mass of our troops at the proper moment on the decisive point of the battlefield.* That, owing to the increase of fire effect, penetration of the centre could ever become a matter of doubt had therefore never entered the mind of Jomini.

We have previously emphasised that rapidity must be one of the signal features of operations on the inner line. The French Army at the time of Napoleon complied with this requirement by completely abolishing tents and tent waggons, and limiting officers' baggage to a minimum. The troops either made use of billets or camped in the open. But the whole system of supply was also regulated in a much simpler manner. During the eighteenth century it hinged on the constant and regular issue of a ration of good bread—that is to say, of bread, above all, not too stale; and this never-failing regularity of bread-issue was, in plain words, the *primary duty of the leader*, because otherwise the hired soldier might acquire a kind of right to desert, owing to indifferent adherence to the contract on the part of the War Lord. All other

victuals the men had to provide for from their pay, and, as a rule, they found opportunities for procuring such in the markets inside the camps, where burghers and peasants of the neighbourhood were allowed to sell their wares.

With the Revolution the maxim gained ground to take the victuals wherever they could be got. In billets the house-owner had to provide them, and in case of need the parish had to assist him. In the open camp men were sent to fetch from the nearest villages whatever was wanted; and if nothing else but livestock was found, the men could prepare an ample meal therefrom with biscuits and rice, which they carried in their knapsacks. This procedure, of course, engendered alternate abundance and shortness of food; but as long as one was moving rapidly from one district into another, it could hardly occur in the more densely populated countries of Middle and Western Europe that danger of hunger would enforce the adoption of a different mode of supply. For such cases the higher units were provided with a reserve of food in the shape of supply-parks and cattle-droves; but the extent of those did not amount to anything like the immense number of bread-and flour-waggons, which were an absolutely necessary apparatus in every Army till quite recent times—*i.e.* till the Revolutionary War.

The Armies were not materially stronger in Artillery than during the last-mentioned period. As regards the amount of ammunition for guns and muskets, the former system was generally adhered to. The whole material of the Army

had, however, become lighter, after rapidity of motion had at last become the leading factor.

The completely altered organisation of the Army was another important step in the direction of increasing mobility. The "Grand Army" of the French Emperor was divided into a number of autonomous army corps, generally not less than eight, and into the reserve Cavalry of the Army. Each Army Corps was composed of several (two to five) Infantry Divisions, one Cavalry Brigade, and an Artillery Reserve. The reserve Cavalry of the Army was at first only divided into divisions, afterwards, as it constantly became more numerous, into Cavalry corps. The permanent organisation into corps and divisions with increased autonomy facilitated issue of orders by headquarters, and made it possible to spread the troops while in motion in such a manner that they could find subsistence without thereby sliding from the control of the Commander-in-Chief. *One must spread to live and concentrate to fight* - that is the great and fundamental idea of a new branch of the science of war, which Jomini called *Logistique*, and which not only replaces the antiquated *Castrametation*, but also includes at the same time the proper arrangement of marches. A carefully selected General Staff becomes a regular institution, and develops the technics of moving Armies.¹

¹ Jomini derives the word *Logistique* from the duties of the Major-Général des Logis to apportion camping-grounds to the troops; but it has been taken from the Greek, and simply means "calculation," because calculations form an important part of the labours of a General Staff, when arranging marches, camps, billets, when making provisions for supply, and so forth. *Logistica* is nothing else but our *Generale-Wissenschaft* (science of General Staff).

The mode of marching large bodies of troops, when Napoleon's star was at its zenith, held a remarkably even balance between the movements of the Armies in the time of line tactics and those which we practise nowadays. In Napoleon's time we no longer notice that timid notion of the eighteenth century which, in the neighbourhood of an enemy, thought it dangerous to give up, even temporarily only, the order of battle, and which rather marched the several columns, forming the various lines and wings of the Army, across country on extemporised roads than permitted them to disregard the prescribed deploying intervals, or to increase the depth of a single body of troops beyond that interval.

The Army of Frederic the Great performed its march to the battlefield, often for miles, in one compact body, the various parts of which had always to execute simultaneously the same movements, or at least movements, which mutually depended on each other, and to start and halt, to wheel or to deploy, and to attack by the immediate word of command of the supreme Commander, which was repeated by the lower ranks and transmitted by them to the lowest. Napoleon had freed himself from such formalism, and the proper utilisation of the roads of a country had become one of the most important parts of the modern science of a General Staff. Every one must have become aware that this procedure not only ensures the greatest celerity when marching for some considerable time, but also spares the troops most, in spite of all unavoidable circuitous routes. When,

however, a battle was imminent, when it became a question of throwing overwhelming masses on the one point where victory was to be ensured by utmost exertions—then the habit of former times was remembered, and the troops were brought forward to the battlefield not only on roads, but also on rapidly improvised tracks (*Kolonnen Wege*). On the roads, where Artillery and waggons had precedence, the columns marched on as broad a front as possible, and off the roads quarter-column of sections was the formation chiefly adopted for marching. Considerable frictions and difficulties must have frequently arisen when watercourses, valleys, and obstacles of all kinds were met with, and doubtless many movements must have completely failed owing to those reasons. The troops must surely have suffered enormous fatigue when this mode was adopted; and in spite of the well-recognised marching power of the French Infantry, it must have suffered very often many losses by arranging marches in that fashion. But when, while studying military history of Napoleon's time, we have often to admire the astonishing rapidity with which the Emperor hurled large masses of troops from one point to the other, we find the key to such phenomena in the procedure above described. And when Jomini in his last work, while discussing retreats, calculates only two hours for a corps of thirty thousand men to clear one road before another corps can follow from the same camp moving to the same object, he does not at all make a mistake, as perhaps some tactical scholars in our time may think; but Jomini has in his mind

arrangements for marching as we have previously described. He also quite distinctly says that it would be sufficient to calculate the hours of starting for different corps according to the time it will take the Artillery to move off.¹ If we have not grasped these peculiar technics of Napoleonic Army movements when in the neighbourhood of the enemy, we could never understand his operation orders.

But there was also a limit, after all, to this wonderful display of uncommonly severe exertions and hardly conceivable performances. In the autumn campaign of 1813 operations on the inner line no longer succeeded in preventing united action of several hostile Armies, and the principle of delivering alternate blows in different directions completely broke down. The cause was not disparity in numbers on both sides, as the Allies were but little superior to the Emperor; nor was it the influence of unusual and unaccountable accidents, such as, for instance, Vandamme's defeat at Kulm is made out to be; for he who wishes to discount this misfortune for the better glorification of Napoleon's generalship, and depict to himself his operations as they might have turned out if Vandamme had been successful, must not overlook the fact that Napoleon, not long before, had the unheard-of stroke of good fortune to find Dresden still untouched and occupied by its comparatively

¹ *Précis*, ii. 114, chap. xxxviii. In his first edition Jomini put "parcs" instead of Artillery. Ammunition-waggons and also the absolutely necessary transport-waggons must, of course be included in the term "Artillery."

weak garrison. A little more generalship on the part of the Allies on the eve of the battle of Dresden, and the Emperor would have been in an almost desperate situation, from which he could have escaped only with the greatest difficulty.

Now, the reason why the operations on the inner line failed in the autumn campaign of 1813 will be found in the growth of the Army, and in the unwieldiness of the masses which were meant to be hurled about with the greatest rapidity, and which, in spite of all the artifices of imperial march technics, could not be got to where they were wanted, or exhausted their energies by the terrible exertions exacted from them. That this was really so, we have a most valuable testimony from Jomini's pen.

Jomini was at that time no longer in French, but in Russian service. After frequent disagreements with Berthier and Ney, whose Chief of the Staff he had been for some time, he resigned as early as 1810; his resignation, however, was not accepted. After renewed frictions with Berthier he was severely reprimanded by the Emperor in the spring of 1813, and evidently unjustly punished. He avoided his master's displeasure, which in such cases was usually lasting, by escape to the Russians—*i.e.* by going over to the enemy. In the autumn he witnessed the events on the staff of the Emperor Alexander, and his opinion on this campaign must be the more valuable as he, with his most intimate knowledge of Napoleon's methods, was now also initiated into the prevailing ideas of those who conquered that great master.

In his *Précis de l'art de la guerre* Jomini, when treating of the events of 1813, enters into the discussion of the strategic problem,¹ "whether the system of a central body would lose its advantages if the forces to be brought into action grow too large." "It seems to me incontestable that a force of 100,000 men, in a central position, opposed to three separate Armies of 30,000 to 35,000 men each, has more chances to beat them in detail one after the other than would have an Army of 400,000 opposed by three Armies of 135,000 men each. And this for the following reasons:

"1. Because an army of 130,000 to 140,000 men can easily resist a much superior force,² since it is difficult to find suitable ground and time for united action of such large bodies on the day of battle.

"2. Because such an Army, even if driven from the field of battle, will still have retained at least 100,000 men, and be able to secure an orderly retreat, without too many losses, with the object of gaining connection with one of the neighbouring Armies.

"3. Because a central body of 400,000 men requires such an amount of supplies, ammunition, horses, and all kinds of material, that its mobility must suffer, and its ability be reduced of transferring its operations from one part of the theatre of war to the other, quite apart from the impossibility of drawing supplies from a district which is of course too limited to sustain such masses.

¹ I. 283.

² *i.e.* for some time.—Author.

"4. Finally it appears certain that both army portions, which the central body would have to oppose to the exterior lines of the enemy, must be each 80,000 to 90,000 strong, since in both cases 135,000 men must be held in check. But if these Armies of observation commit the imprudence of entering into serious engagements and suffer defeats, the regrettable consequences of these may altogether push into the background the successes which the main Army may have gained in the meantime."

By rights we ought now to expect the acknowledgment that operating on exterior lines is after all not to be condemned as Jomini had done in his first book, and that it is only a question of overcoming difficulties inherent in such an operation. In 1813 the Allies mainly mastered those difficulties by issuing general *instructions* instead of *dispositions*. They never made the attempt at wishing to regulate the movements of the three Armies minutely in advance for every day and place, or even to direct them continually by orders from headquarters. They had rather settled, in broad outline, on a simple and clear general idea of operations, and left it to the three Commanders-in-chief to act conformly according to circumstances. Frictions were certainly not wanting, and if Napoleon's operations on the inner line had not been hampered by the difficulties of the *exaggerated mass-formations* described above, the danger of a concentric advance might have become much greater. But for all that, it was a very great progress to allow freedom of action in carrying

quarter column of sections

out operations for the attainment of one common object; and if we trace things to their last causes, we may be permitted to say that in the autumn campaign of 1813 self-reliance of subordinate Commanders secured one of its greatest triumphs. Now, if we consider that already in the middle of the nineteenth century the electric telegraph had become an additional means of intercommunication, we should think that Jomini ought to have arrived at different conclusions from those of fifty years ago; but he continues:

"In spite of all these doubts and scruples, if ever I should have to lead an Army I would not for a moment hesitate to move it on the inner line in all those cases which I have always characterised as the most advantageous. In every other case I would direct it on one of the enemy's flanks, as previously explained. But I would leave to my adversaries the pleasure of acting on the other system."

I believe that Jomini looked upon the political situation in 1813 and on the gigantic struggle of the peoples of Europe for the overthrow of the great Corsican as quite exceptional, and thought it was unnecessary to trouble about such enormous Armies in future.¹

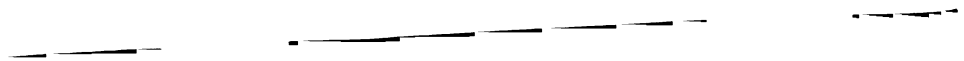
¹ I could not here enter into more details of the autumn campaign of 1813, which at the present moment is again brought into prominence by the excellent description of Major Friedrich. But I must briefly repeat, what I have said before in the *Militär Wochenblatt*, No. 26 of 1902, that in my opinion there was for Napoleon no necessity whatever to operate on the inner line, and that for his problem there was rather a solution which offered very much better chances, if only he could have made up his mind to operate with several really independent Armies on a broad front, and thus to adopt a mode of procedure which

With this I can conclude my sketch of Jomini's strategy in general, and will only add that he considers a solidly fortified base a necessity, and that he also wants to see the lines of operation behind the Army secured by fortifying provisionally the supply depots along those lines; and finally, that in the strategic offensive he looks upon the siege of an enemy's fortress as a necessary evil, which should be as much as possible avoided. We have already directed attention to Jomini's absolute preference for the offensive, and therefore it is a matter of course that he intends to conduct the strategic defensive with the utmost energy. When retreating in his own country he prefers to give way to one flank, which must either draw the enemy away from the most dangerous direction or threaten him in his flank.

Jomini's works, especially as regards tactics,

his adversaries made use of at the same time. If the greater part of the whole French Army, formed into two Armies, had acted defensively at the opening of hostilities, behind the middle Elbe and the Erzgebirge, and if the smaller part, as a third Army, had assumed the offensive from behind the line Hamburg-Magdeburg right into the strategic flank of the Crown Prince of Sweden, a favourable opening of the campaign would have at any rate been ensured. The Swedes would have undoubtedly forthwith retired to Stralsund and Rügen, the remaining corps of the Northern Army, probably after unsuccessful struggles against greatly superior numbers, would have been obliged to abandon Berlin and to retire on the Silesian Army, and the French garrisons of Stettin and Küstrin would have been free. And it cannot be so readily denied that meanwhile Napoleon would have been able to carry on an active defence successfully behind two strong positions with the two Armies on his right; the moment would then have arrived for him to advance across the Elbe with the reinforced Army of the centre in order to gain touch with the Army on his left, and to seek the main issue in that direction where Blücher, his most active antagonist, was, and where also the Russian lines of communication were situated.

contain many more ideas of great value, which is only to be expected from a man with his great experience of war. Yet I cannot understand the high praise bestowed upon him recently by a particularly intelligent countryman of ours. Yorck von Wartenburg's admiration for Napoleon caused him to overlook many obscurities and phrases of the scientific apostle of this great Commander. Jomini's handling of military history could be almost called naïve. He is of opinion that Frederic the Great ought to have assembled all his forces in Upper Silesia at the beginning of the Seven Years' War, and then marched to Vienna in fourteen days, without taking any notice of Olmütz and Brünn or anything else. Jomini, therefore, is wanting in historical understanding and appreciation of the circumstances of the times, with which Frederic the Great was absolutely obliged to reckon. Although Jomini began his military career in a period of great military changes, he had absolutely no clear conception of the great difference in the military organisation of Prussia in 1756 and that of the French Empire in 1805. The same may be said to some extent of Napoleon, who had never really studied military history in the sense that we do now, and who therefore was not at all always a competent judge of the past, although his penetrating mind gave him sometimes the chance of uttering a sentence of brilliant effect. Jomini, however, was at least intimately acquainted with Lloyd-Tempelhoff's History of the Seven Years' War, choosing it as the foundation for his own system of war, and his



inability, therefore, of appreciating the circumstances of those times is very strange indeed.

Theodor von Bernhardi calls Jomini an "empty head, who, even when he hits the right thing, does not really know why it is the right thing." This is a severe judgment, and may be considered as somewhat exaggerated; one thing, however, is clear at any rate, that it was fatal for the French that their theoretical knowledge of the nature of war remained, for several generations, based upon Jomini's writings. For however justified we are in pointing to him as the scientific representative of the Napoleonic art of war, and however much Napoleon himself recognised him as such, the fact always remains that the Emperor was a great artist of wonderful penetration for reality and facts, one of the most highly gifted and most powerful men of all times, while Jomini was after all only an able General Staff Officer, who had correctly understood his master's main ideas. We shall presently have occasion to see how German thoroughness, when studying the Napoleonic wars, arrived at an essentially broader conception of the nature of the art of war, the enormous advantage of which lies in its *capacity for further development*.

I have previously proved by his own works that Jomini completely rejected any further development of his system in accordance with altered conditions. Because he did so, only a complete rupture with Jomini could have saved the French from their torpor. But the master's approbation was an obstacle to such rupture.

It is the same thing over again in France as once in Prussia, after the death of Frederic the Great. It is well known what the great King after the war said of his brother Henry, with whose timid and inactive manner of conducting operations he was very often much dissatisfied—namely, that Prince Henry was the only one *who never made a mistake*. If he had foreseen how the strategists of the ball-room, how the representatives of scientific manœuvres, of threats, diversions, feints, etc., in short, how people of Bülow's stamp would further develop Prince Henry's art of war, he would probably not have bestowed that praise on him.

CHAPTER IV

ARCHDUKE CHARLES

A THEORETICAL treatise on the art of war composed by a versatile and highly educated General on the strength of his experiences in several campaigns must always claim our attention. Archduke Charles had conducted a very successful campaign against Jourdan and Moreau in South Germany in 1796, and again defeated Jourdan on the same theatre of war in 1799; he had also fought as Commander of an Army against Buonaparte in the Alps in 1797, and against Massena in Upper Italy in 1805, before he published in 1806 a strategico-tactical work under the title *Principles of the Art of War for Generals of the Austrian Army*.¹

After wrestling with Napoleon in 1809 for the palm of victory in a battle which was for a long time doubtful, he prepared a more extensive book treating of the *Principles of Strategy*, and forming with a critical account of his first and at the same time best performance as a General, the campaign of 1796 in Germany, one complete work.

The strategic matter of his former book, which was written for Generals of the Austrian Army,

¹ *Grundriss der Kriegskunst für die Generale der oesterreichischen Armeen* (tr.).

was of course embodied in the *Principles of Strategy*, and I need therefore only concern myself with that book, which in 1813 was at first only accessible to a small number of experts, but which in 1814 appeared also for sale in book-shops.¹

In this book Archduke Charles advances the following guiding principle: "The events of war have such decisive results that it is the first duty of a General to ensure success at all cost. But this can only be attained if the necessary means for conducting a war are available; therefore only by an Army which is in possession of the country from which the means are obtained, and of those roads on which they are brought up to the Army. *Every disposition and every movement, therefore, must afford complete security for the key to the country behind, i.e. the base of operation*, where supplies are accumulated for the communications leading from those sources of supply and for the line of operation which the Army has selected in order to advance from the base to the objective. This is a principle never (!) to be departed from, and containing the essence of strategy."

The Archduke then explains that the effect of a strategic point is felt only so long as the Army which is assembled at that point is able to bar every hostile advance before it can touch the territory to be covered by that Army. Eight geometrical figures with angles, triangles, and circles attempt to enlighten the reader on every

¹ Reprinted 1893 in Vienna and Leipzig: *Ausgewählte Schriften Weiland Sr. Kaiserlichen Hoheit des Erzherzogs Karl von Oesterreich*, vol. i. and ii.

possible case of that kind. I will not reproduce them, and only remark that, on the one hand, they prove in a very roundabout way things quite obvious; and that, on the other hand, the results remain highly debatable, since in war not only distances have to be considered, but also direction, number, and condition of the roads.

The Archduke then continues: "If in the strategic plan the safety of base and lines of communication have been considered to their fullest extent, and if the General is thoroughly satisfied on that point, he must, when on the offensive, advance *with the utmost boldness*, but on the defensive hold obstinately every position he occupies. Both, however, will be impossible, and the State will suffer most pernicious consequences, if the first principle has been neglected."

The special emphasis on "utmost boldness" when on the offensive sounds certainly pleasant enough for our modern ears, but we can only call those words an embellishment of speech which has no particular deeper meaning; for the main principle in the archducal writings is not at all boldness, but the most pronounced caution—a caution which the practical General had indeed repeatedly, but of course not always, shown. And this principle of caution is the more regrettable because it is advanced by a man with such great practical experience as the beginning and end of all wisdom.

Archduke Charles's *fundamental principle alone, that every disposition and every movement must afford complete security for base and communications* is a serious hindrance for acting really boldly.

For whoever is resolutely bent upon his adversary's utmost discomfiture must try to get at his flank and rear in order to drive him from his lines of communication, and such an operation surely can only be carried out on very rare occasions indeed without endangering one's own communications. As soon as *complete* security for one's own rear is declared to be an absolute necessity in any enterprise, the possibility of great and important successes is limited in the utmost degree, and the vigorous handling of an Army, even if greatly superior, is characterised as extremely hazardous. But the Archduke writes this primary sentence not only once at the beginning of his work, he repeats it again and again on most varied occasions to make it perfectly clear that he is most earnest about it.¹

The *Principles of Strategy* leave tactics as much as possible alone. In order to understand, therefore, the Archduke's caution to its fullest extent, we must quote some portions of others of his theoretical writings. Thus we find in his *Essays on Practical Training in the Field*, published between 1806 and 1813, the following sentences²:

"*The reserve must only be drawn into action if its employment is without any doubt decisive, or if one is sure that it will be able to hold its own in the position of the forward and defeated troops until they have rallied behind, and taken the place of, the reserve. In any other case, the reserve is used to cover*

¹ Pp. 245, 248-9, 283, 285, 330. Moreover in the same volume, *Principles of the Higher Art of War*, pp. 6 and 50; also *Essays on Practical Training in the Field*, pp. 145, 149, 151.

² *Auserwählte Schriften*, i. 144, 147, 148.

the retreat in order to prevent the dispersion and annihilation of the corps. This object is the most important of all, because it is easier to make good the loss of a position than the destruction of the corps, excepting very rare occasions when the welfare of the whole demands the sacrifice of a portion."

"The reserve follows behind the centre or behind that wing which is singled out for the decisive attack. Now and then it may be drawn into action, if only a final pressure is needed to complete victory; otherwise its main duty is always ensuring and covering retreat."

These sentences systematically prevent a considerable part of the available force from taking part in the struggle for victory, and at the same time make it appear as if retreat was, properly speaking, the natural termination of every action.

Furthermore: "One is often obliged to occupy points in rear of which are deep ravines, gorges, etc., because corps are frequently detached to keep open for some time the entrances into those defiles. The danger of such a position, which may entail the annihilation of the corps, if the enemy pushes it back into the defile, can only be guarded against by leaving a considerable part of the corps as a reserve behind the defile in order to cover the retreat of the advanced troops, to stay the enemy's pursuit, and to give the defeated troops time to recover and to rally."

The absurdity of such caution at all costs becomes here still more apparent, for if once the beaten troops have safely passed through the defile, they are as a rule out of all danger, since it is a com-

paratively easy task to block the outlet of the defile from which the enemy attempts to issue. The retreating troops themselves can do that, and need no reserve for that purpose; but in advance of the defile the reserve would be able to co-operate in the attainment of the real object. Resolute and energetic action cannot at all be reconciled with all these rules of the Archduke, and yet they are all to be firmly and faithfully adhered to. "Only when the last object, which would decide the fate of the State, is on the point of falling into the hands of the enemy, only as a last resort may the General risk a battle even with inferior forces; *then he may depart from every rule*, and, disregarding everything else, attack only that point where victory is most easily gained. *It is the battle of a desperate man, the loss of which he does not survive.* It is then immaterial to him how he ends and immaterial how he conquers: everything he has gained by victory, though it may have no other consequences but the preservation of the object fought for; everything he has lost if he has been defeated."¹ How strange these words sound, if we consider that at the time they were written the man who so impressively had taught the world the importance of tactical success was at the zenith of power and glory. In all this we cannot find a trace of cheerful confidence in one's own strength and ability; they are views the origin of which must certainly be traced to Daun's headquarters in the Seven Years' War.

And completely in harmony with the spirit of

¹ *Ausgewählte Schriften, Grundsätze der Strategie*, i. 330.

the eighteenth century is the chapter in which the Archduke enlarges upon the character and importance of "strategic points."

"A point is called strategic if its possession is of decisive advantage to the operations. But the possession of a point is only decisive if it covers the line of communication leading up to it; if its occupation can in all reasonable probability be maintained; if the enemy dare not pass it unpunished; and if one can move from it in several directions. In offensive as well as in defensive warfare the same points are for both sides strategic, which the offensive is to reach and the defensive is to maintain. Only the nature, situation, and condition of the theatre of war can determine such points."

He says that in open countries there are no strategic points or only few, because one can move there freely and unhampered in all directions, and the same holds good for mountainous regions, since there are no roads or only few. Strategic points will be found more frequently in close countries, where the nature of the ground more clearly indicates the roads for warlike enterprises, and in highlands, especially if the country is well populated and cultivated. They will generally be indicated by the junction of several communications, like roads or navigable rivers.

He next classifies strategical points as points on the base, and points which form the objective of an operation, and intermediate points. He then continues:

"In every State there are strategical points

which are of paramount importance for the fate of a State, since by their occupation we gain the key to the country and secure its resources. These points are mostly situated in the centre at the junction of the principal high roads, or near bridges or passes when a large river or a mountain-range divides the country into two parts. There are only few such points in a State, frequently only one, and the same point is in this way decisive, no matter from what side the war proceeds, and no matter from what side an enemy may come. So much more numerous, however, are those points which form the objective of minor operations. . . ."

"Intermediate strategic points secure the possession of the country just traversed, and, owing to the command of more roads, open the way to further progress and the attainment of the main object or other operations, if unforeseen circumstances demand a change in those which were intended. *If it happens to an Army to be obliged to halt during the progress of its operations, it ought to do so only at strategic points.*"

"Those points, the possession of which decide the fate of one's own country, must constantly remain the General's main solicitude. They are those points whither he has to direct retreat, and on which he must concentrate all his forces for their utmost defence, even if there would be sufficient troops available for covering with some probability more forward territories. When the available forces are small, they must not be prematurely split up, weakened, and disabled to maintain those decisive points, because they alone

are strategic and worthy of attention. In every State which has a military system it should be a political maxim to put and keep such points in a state of defence even during profoundest peace, in order to be able to maintain them a long time with few forces, and to deter every enemy from war by convincing him of the difficulty of their conquest. The other strategic points need only be considered and defended according to whether their occupation by the enemy may lead him to the more decisive ones, and in proportion to their importance in that case and the number of troops available.

"When it is more a question of circumstances than great superiority which induce the enemy to attack, those strategic points from which we threaten him offensively are the best for defence, particularly if they also offer tactical advantages and if gaining time is useful. In order, however, to be fully effective, this threat must be directed against a point which is of importance to the enemy, without exposing oneself at the same time. We must make it impossible for the enemy to do anything before having fully secured himself, and this securing himself must be attended with difficulties. We must successfully dispute him the point which he might be able to force with his superiority, or retire on to another strategic position without exposing ourselves to defeat, which would spoil everything."

I have quoted here the main substance of this chapter because it forms the quintessence of strategic science as viewed by the Archduke.

*This, surely, proves irrefutably how right Clausewitz was when he reproached the Archduke with attaching more value to ground than the annihilation of the enemy.*¹ But it proves still more; it shows us that such high regard for ground must necessarily lead to a certain predilection for *passive* defence which thinks that merely to threaten an adversary is in itself a real gain. And this is more especially apparent in the second main part of the book to which I shall now turn. The remaining chapters of the first main part, on strategic lines of operation, on base of operation, operations and defensive concentrations (*Aufstellungen*), contain nothing that would be essential for the reader to know.

The second main part is intended to show the application of strategical principles to an assumed theatre of war. The Archduke chooses for that purpose South Germany, with the Rhine as frontier of the Western State, Switzerland and Tyrol being assumed as neutral. But, curiously enough, the Rhine is not at the same time the frontier of the Eastern State; that State was obliged to select rather the line Theresienstadt-Prag-Budweis-Enns-Steyer as the base of operation, which is close behind the actual Austrian western frontier, and nothing whatever is said about the international membership of the actual South German theatre of war. The whole territory belongs neither to the one nor to the other party, but is just as little neutral; there prevails here, therefore, an impossible state of affairs compared

¹ Vide *Augenblicke Schriften*, vol. I. p. 6, where the Editor tries to refute this criticism of Clausewitz.

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with which even the most confused constitution of the former German confederation at its lowest ebb was a pattern of lucidity. But this is not all! The world for the Eastern State practically ceases to exist altogether behind the above-mentioned base Theresienstadt-Steyer, and Vienna does not come into play at all. The case is discussed, that the Western Army is standing at Enns and Linz after successfully advancing along the right bank of the Danube, and that it could not hurt in the least the Eastern Army, based on Budweis and Prag, in its position on the left bank of the Danube, because the river here forms a very formidable defensive barrier. Yet about the fact that the invasion from the west, like Napoleon's in 1805 and 1809, could continue its advance downstream along the right bank of the Danube against the capital of the Empire, distant only six days' march—about that fact there is not the least trace of a hint. The considerations here brought forward rather culminate in the sentence, that the most appropriate mode of action for the Western Army would be to remain on the left bank of the Danube, and to deviate from the straight road to Budweis, its natural objective, as little as possible.

In short, the supposition of the example is so extraordinarily unintelligible that it is quite impossible to start upon it a really profitable discussion. The detailed military geographical description of the assumed theatre of war is therefore nothing but a most unedifying collection of data, which could be gathered easier and better from maps already obtainable at the beginning

of the nineteenth century, and of observations of no military value whatever.

Even in our days attempts are made sometimes with a pretence of appreciating the military value of a country district without assuming a well-defined military situation as a firm basis; but in that case all is missing which is really essential. The country certainly retains always its high, and very often decisive, importance for warlike operations on large or small scales, but we lose ourselves in all kinds of unproductive fancies as soon as we look upon the country alone in a general way. The correct estimation of a country can only begin when a well-defined task is given to a well-defined force. It is then a question of how we can make the best use of the country to carry out that task. But in the whole of the Archduke's treatise no mention whatever is made of the strength of the Eastern or Western Army, and how uncertain the given data are for the object and intentions of both parties I have previously shown.

In the *Principles of Strategy* appears as one of the main results of investigation the sentence, that the part of the Danube between Ulm and Regensburg (Ratisbon) —the defile of the Danube, as the Archduke calls it—must play an important part in all operations in South Germany. That may perhaps be granted, even in this general form, although the Danube itself is there still a modest river, the crossing of which is only difficult where extensive marshes accompany it. But if at once the inference is drawn from this that it would be

the next duty of both Armies to gain this part of the river by advancing east and west and to secure a suitable point for crossing, what is intrinsically a suitable point ceases to be so at this moment, and a faulty mode of thought begins, which has more consideration for ground than for the enemy.

Where such decisive value is attached to the conditions of ground, one cannot wonder, of course, when the defensive proceeds to concentrate on an extraordinarily extensive front. As a matter of fact, 200,000 men had been the largest Army up to the year 1812, and there can be no doubt that in his considerations the Archduke had smaller numbers in his mind. If now he repeatedly proposes for his Eastern Army a defensive concentration on a front of about 125 miles (200 kilometres)—e.g. from Ochsenfurt, on the Main, to Memmingen, on the Iller, or close behind, from Neustadt, on the Aisch, to Mindelheim—it is certainly a very large, cordon-like extension, and we may fairly wonder that such ideas could still raise their heads after Napoleon had practised for the last fifteen years strategical penetration with the utmost success, and after Jomini had welded this procedure into a scientific system, which the Archduke thoroughly knew.

I need not further dissect the *Principles of Strategy*, and can also pass over the critical account of the campaign of 1796 and the later military works of the Archduke. What is here the main point will be already sufficiently obvious—namely, that it was a false science, which gave itself such airs with its theory of the “key.” But

we cannot stop here with our considerations. In like manner as Bülow's confused ideas were co-responsible for the Prussian defeat in 1806, so have the Archduke Charles's ideas unmistakably exercised a baneful influence, even where he was not himself an actor. The hesitating caution of Schwarzenberg's generalship was surely quite in harmony with his rules, and the march to the plateau of Langres completely falls in with his system of strategic points which are decisive for the occupation of a country. He who looks deeper into the history of 1859 will find in the often strange plans of the Austrian Chancellery of Operations many proofs that the strategic principles of the Archduke had a great deal to do with the training of the General Staff at that time. And the almost unintelligible day of Montebello, where a force more than three times the enemy's number is beaten because it manages to be not strong enough at the decisive point and at the decisive moment, owing to the constant echeloning of reserves, which remained idly behind—that day becomes more intelligible when we know how categorically the maxims of the Archduke are worded as regards the protection of strategic points and endangered lines of retreat, and also as regards the non-employment of reserves.

Indeed, his influence is still felt even in 1866, when the Austrian Army was generally animated by such an admirable offensive spirit. For the defensive position on the Elbe north of Josephstadt was held by the Chief of the General Staff of the Northern Army to be a strategic point of decisive

value, and since the Commander-in-Chief had no scientific training to be able to refute such errors, this theoretical opinion of his first helpmate was for him like a drag, and prevented him from displaying his best abilities. I consider the history of Benedek's headquarters in 1866 as one of the most instructive examples for gaining a clear perception of the influence of theory on practice. It proves the helplessness in high position of will-power reared *only* in a practical school, and shows how it may be dragged in directions which are absolutely opposed to its innermost convictions. And just for that reason this history also proves how very greatly interested everybody must be to see correct and sound theories predominating over false and unsound fads that should be cast aside. At the present moment we live in an age where an extraordinary progress in the technics of firearms exposes us to the danger of over-estimating the value of defensive positions, and where such theories of the importance of ground in strategy as advanced by the Archduke Charles might again become that serious danger for weak minds which it amply proved itself to be in the numerous wars of the eighteenth century. It was therefore necessary to leave here no doubt about their failure in history.

The reason why the theories of the Archduke Charles became of lasting influence in Austria was of course because he was a member of the reigning house. But the popularity of the "Victor of Aspern" was also in other parts of Germany the cause that people attached far too much importance to his ideas.

The Prussian General von Valentini, who in the wars of liberation as an officer on the staff of Yorck had the advantage of an excellent training under the eyes of Gneisenau, expresses generally very correct principles in his *Theory of War* (*Lehre vom Kriege*), which appeared at the beginning of the twenties, and shows, as compared with Bülow's and Jomini's axioms, a freedom of thought which has a pleasant effect. But the Archduke's theory of a "key" has still bewitched him, and with that theory as a guide a relapse into the ideas of the eighteenth century would have been only too likely. We Prussians and we Germans of the present generation have every reason to be grateful that the author Valentini was only a short time allowed to work, and that soon after him a greater one came, who at once put him into the shade.

CHAPTER V

CLAUSEWITZ

KARL VON CLAUSEWITZ, the pupil and friend of Scharnhorst and the confidant of Gneisenau, is, in Germany, generally recognised as the most prominent theorist on war, as the real philosopher on war, to whom our famous victors on the more modern battlefields owe their spiritual training.

Already in 1793-4 he had seen active service as a boyish ensign, and as such taken part in the siege and capture of Mainz, one of the few military feats of that time which can be honourably mentioned. He was next, in 1806, as an aide-de-camp of his youthful Battalion Commander, Prince Augustus of Prussia, an eye-witness of the battle of Jena, and of that awful retreat which a fortnight later ended with the surrender at Prenzlau. In 1812 Clausewitz entered the Russian service, was employed on the General Staff, and thus able to gain much experience in the most gigantic of all the struggles of his time. In the spring campaign of 1813 he, as a Russian officer, was attached to Blücher's staff; during the autumn campaign he found employment as Chief of the Staff of Count Walmoden, who fought against Davoust on the Lower Elbe, and the splendid action in the

Goehrde was entirely the result of his able dispositions. In 1814 the Russo-German Legion had no opportunities for being actively employed. In 1815 Clausewitz is again in Prussian service as Chief of the Staff to the Third Army Corps (Thielmann), which at Ligny formed the left of the line of battle, and at Wawre covered the rear of Blücher's Army. In addition to this, we may say, considerable practical training, Clausewitz possessed a comprehensive and thorough knowledge of Military History, and also an uncommonly clear perception of General History--an historical mind fit to rank with the great historians, as Hans Delbrück thinks.

And this practical and experienced, and at the same time highly cultured, soldier feels now in peaceful repose, as he himself confesses, the urgent need to "develop and systematise" the whole world of thought which occupies him, yet also resolves to keep completely secret until his death the fruits of his researches, in order that his soul, which is thirsting for truth, may be safely and finally spared all temptations by subordinate considerations.

In this way, in addition to a series of essays on Military History, originated his work *On War*, in three volumes, which was published by his widow soon after the General's death (1831). The work was unfortunately not finished; indeed, the author calls it, in two notices which he made in the last years of his life, once "a collection of materials from which it is intended to construct a theory of war," and at another time, "a mass of concep-

tions not brought into form; but as these are open to endless misconceptions, they will doubtless give rise to a number of crude criticisms." But in this "Notice" on his work he at the same time has indicated for us the general line on which he intended to proceed in the final elaboration of his overwhelming material; and if we faithfully try to grasp his whole trend of thought, we can certainly supply some deficiencies and make the necessary alterations which he intended by his latest plans.

In doing so we must, of course, be perfectly clear about the *object* which Clausewitz had finally in view as an author. Just twenty years ago I took part in a strife which raged at that time about the strategy of our great King, by publishing a small pamphlet on Frederic the Great's plan of campaign in 1757, and in it I opposed Delbrück's assumption that Clausewitz, in the projected revision of his work, intended to include in his investigations, in addition to modern strategy, also the strategy of the eighteenth century. I gave it as my opinion that Clausewitz had meant to write his book for present and future soldiers and statesmen, and that we ought, therefore, to understand in this sense the "Notice" in regard to its projected fundamental alterations. Delbrück, in reviewing my pamphlet, declared at the time that my opinion was "without doubt incorrect," and added, "Clausewitz meant to define the term War scientifically, and not only to give practical maxims for the present and future. A correct definition of the term War ought necessarily to include every form of war for the time

being. The gap caused by Clausewitz's inability to finish his work has not been filled to the present day."

I did not follow up the controversy at that time, owing to my appointment to another and very arduous command, which withdrew all my thoughts from these topics. But here I must again return to the same subject, and in the first instance direct attention to the fact that Clausewitz in the same "Notice" quite distinctly says he hoped "in this book to iron out many creases in the heads of strategists and statesmen, and at least to show the object of action and the real point to be considered in war." In another "Notice" on his work he talks about the difficulties of a theory of great war, and lays stress upon the fact that great Generals always were guided as a rule merely by the tact of judgment, which is amply sufficient in action. "But when it is a question, not of acting oneself, but of convincing others in conference, then all depends on clear conceptions and demonstrations of the inherent relations; and so little progress has been made in this respect, that most deliberations are merely a contention of words, resting on no firm basis, and ending either in every one retaining his own opinion, or in a compromise from mutual considerations of respect, a middle course really without any value. Clear ideas on these matters are therefore not wholly useless; besides, the human mind has a general tendency to clearness, and always wants to be consistent with the necessary order of things." And when discussing the

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nature of theory, Clausewitz says: "It should educate the mind of the future leader in war, or, rather, guide him in his self-instruction, but not accompany him on the field of battle: just as a sensible tutor forms and enlightens the opening mind of a youth, without therefore keeping him in leading-strings all through his life."¹ At another place he expressly adds, when speaking of theory, "Any theory to be practically useful."² When discussing the value of examples, he finally says, "that the *latest* military history is naturally the best field from which to draw them." He thinks that the wars of the eighteenth century, "at least as far as armament goes, have still a considerable similarity to the present, notwithstanding the many important changes which have taken place both great and small. . . . The farther we go back, the less useful becomes military history, as it gets so much the more meagre and barren of detail. The most useless of all is that of the old world."³

After quoting these sentences, of which there are many more, I have no doubt that Clausewitz, in his investigations, had *above all* in his mind always the practical wants of the men who ought to be called upon to act in the wars of the present or future. But I think that to define scientifically the term War, he was just as little obliged to show us the forms of war of the eighteenth century as those with which Alexander, Hannibal, and

¹ Book ii. chap. 2, No. 27

² Book vi. chap. 28

³ Book ii. chap. 6.

Cæsar gained their victories, and which he never mentions. We shall see later on that it is just the practical wants which give us an opportunity of supplying what is still missing in his work on war.

"It should educate the mind of the leader in war," is what Clausewitz demands from a useful theory; but he most expressly and unreservedly rejects every attempt at a method "by which definite plans for wars or campaigns are to be given out all ready made as if from a machine."¹ He mocks at Bülow's including at first in the one term "base" all sorts of things, like the supply of the Army, its reinforcements and equipments, the security of its communications with the home country, and lastly the security of its line of retreat, then fixing the extent of the base and finally substituting an angle for the extent of that base; "and all this was done merely to obtain a pure geometrical result utterly useless. This last is, in fact, unavoidable, if we reflect that none of these substitutions could be made without violating truth and leaving out some of the things contained in the original conception."²

For the same reason Jomini's principle of the Inner Line does not satisfy him, owing to its mere geometrical nature, although he right willingly acknowledges "that it rests on a sound foundation, on the truth that the combat is the only effectual means in war."

All such attempts at theory seem to him therefore

¹ Book ii. chap. 4.

² Book ii. chap. 2.

perfectly useless, because they strive to work with fixed quantities, while in war everything is uncertain, and all considerations and reflections must reckon with all kinds of variable quantities; because they only consider material objects, while every action in war is saturated with mental forces and effects; lastly, because they deal only with the action of one party, while war is a constant reciprocal effect of action of both parties.

In war the amount and intensity of hostile feeling and courage influence all resolutions just as much as the consciousness of great responsibility. Diversity of individual mental capacity of those opposed to us and of those assisting us must be taken into consideration. The actual facts, however, upon which our actions are based are as a rule shrouded in mysterious darkness and uncertainty. And therefore a positive system, an exact guide how to act, is impossible, and theory can only be a reflection. "It is an analytical investigation of the subject that leads to an exact knowledge; and if brought to bear on the results of experience, which in our case would be military history, to a thorough familiarity with it. The nearer theory attains the latter object, so much the more it passes over from the objective form of knowledge into the subjective one of skill in action; and so much the more, therefore, it will prove itself effective when circumstances allow of no other decision but that of personal talents; it will show its effects in that talent itself. If theory investigates the subjects which constitute war; if it separates more distinctly that which at

first sight seems amalgamated; if it explains fully the properties of the means; if it shows their probable effects; if it makes evident the nature of objects; if it brings to bear all over the field of war the light of essentially critical investigation—then it has fulfilled the chief duties of its province."¹

Shortly afterwards, however, Clausewitz continues: "If maxims and rules result of themselves from the considerations which theory institutes, if the truth concretes itself in that form of crystal, then theory will not oppose this natural law of the mind; it will rather, if the arch ends in such a keystone, bring it prominently out; but it does this only in order to satisfy the philosophical law of reason, in order to show distinctly the point to which the lines all converge, not in order to form out of it an algebraical formula for the battlefield; for even these maxims and rules also are more to determine in the reflecting mind the leading outline of its habitual movements, than to serve as landmarks indicating to it the way in the act of execution."

Naturally, opposition was not wanting in regard to the nice distinction which Clausewitz drew between his own system and the theories of others, and especially Jomini tried to characterise it as the outcome of particular conceit. The distinction is, however, correct all the same, and Clausewitz has rendered an immense service by setting to work with such cautious restraint in advancing precise axioms and rules before accepting them

¹ Book ii, chap. 2, No. 27.

as really reliable. His mode of investigating has actually cleared up the nature of war from every point of view in an equal measure, and as he pictures war, the struggle between the spiritual and moral forces on both sides is the centre of all; they are those factors which Bülow and Archduke Charles had not taken into consideration at all, and which with Jomini do not get their full share since he enthroned a law of geometrical forms.

“Thus, then, in strategy everything is very simple, but not on that account very easy. Once it is determined from the relations of the State what should and may be done by war, then the way to it is easy to find; but to follow that way straightforward, to carry out the plan without being obliged to deviate from it a thousand times by a thousand varying influences, that requires, besides great strength of character, great clearness and steadiness of mind, and out of a thousand men who are remarkable, some for mind, others for penetration, others again for boldness or strength of will, perhaps not one will combine in himself all those qualities which are required to raise a man above mediocrity in the career of a General.”¹

Clausewitz fully shows how uncertain in war are always news and suppositions, how incessantly Chance has a hand in it and assails the mind of the General with all kinds of disquieting notions. In order to emerge successfully from this constant wrangle with the unexpected, he ought, firstly, to possess a mind which, amidst all the obscurity

¹ Book iii. chap. 1.

surrounding it, sees some light that guides to truth, and secondly, the courage to let itself be guided by that dim light. This special kind of courage is resolution. “This resolution now, which overcomes the state of doubting, can only be called forth by the intellect, and in fact by a peculiar tendency of the same. We maintain that the mere union of a superior understanding and the necessary feelings are not sufficient to make up resolution. There are persons who possess the keenest perception for the most difficult problems, who are also not fearful of responsibility, and yet in cases of difficulty cannot come to a resolution. Their courage and their sagacity operate independently of each other, do not give each other a hand, and on that account do not produce resolution as a result. The forerunner of resolution is an act of the mind making evident the necessity of venturing, and thus influencing the will. This quite peculiar direction of the mind, which conquers every other fear in man by the fear of wavering or doubting, is what makes up resolution in strong minds; therefore, in our opinion, men who have little intelligence can never be resolute. They may act without hesitation under perplexing circumstances, but then they act without reflection. Now, of course, when a man acts without reflection, he cannot be at variance with himself by doubts, and such a mode of action may now and then lead to the right point; but we say now as before, it is the average result which indicates the existence of military genius.”¹

¹ Book i. chap. 3.

I should like best to quote here the whole chapter on "The Genius for War" and place other chapters beside it, as *e.g.* the treatise on "Friction in War" or the other on "Tension and Rest (The Dynamic Law of War)," in order to show by juxtaposition of the most varied examples what really constitutes the peculiar worth of Clausewitz's mode of investigation. But I may rely upon the general knowledge of the book *On War*, and content myself with drawing special attention to those chapters and the first and third books generally. When attentively reading them to-day we must say, in looking back, that Clausewitz has become after all the real schoolmaster of the Prussian Army just owing to these investigations. They freed us from all that artificiality which gave itself such airs in the theory of war, and have shown us what, after all, is the real point.

For an investigation like our present one, which is meant to depict in an easy manner the evolution of all strategic thought during a whole century, they are just those maxims and rules which must of course be of peculiar importance, in the crystallised form in which, as the author expresses it, truth concretes itself for him spontaneously. With their aid we can draw a sketch, which indeed cannot be a substitute for a picture, but which may suffice to enlighten us to some extent on its eminence and value.

We must then first and above all quote the sentence which defines the nature of war with such striking brevity: "*War is only a continuation of State policy by other means*"; or also, "War is

only a part of political intercourse, therefore by no means an independent thing in itself."¹

It is unnecessary for our purposes to follow closely the clever philosophical investigation of the term "War," which forms the first and, as the author thinks, the only completely finished chapter of the book. It shows that the act of force, which we call war, ought primarily always to aim at the utmost attainable, though this is not at all borne out by facts. On our planet two opponents who are prepared for war are not abstract terms, but they are living individuals, who know, or think they know, each other; nor are they both alone upon this earth—other States dwell there as well, whose attitude in the course of the war may have most serious consequences; and thus the probabilities of real life limit the extreme and the absolute, and the amount of one's own exertions is determined by the theory of probabilities. War therefore derives its form chiefly from the mode of international intercourse, which we call politics; war is a political instrument, "and it is only by taking this point of view that we can avoid finding ourselves in opposition to all military history. This is the only means of unlocking the great book and making it intelligible." Because this is so, wars must absolutely differ according to the nature of their motives and the circumstances of their origin.

"Now the first, the grandest, and most decisive act of judgment which the Statesman and General exercises is rightly to understand in this respect the war in which he engages, not to take it for

¹ "Notice" and book viii. chap. 6.

something, or to wish to make of it something which, by the nature of its relations, it is impossible for it to be. This is, therefore, the first, the most comprehensive of all strategical questions."¹ And in the book about the plan of war, where this subject is more intimately treated, it is said: "In one word, the art of war in its highest point of view is policy, but, no doubt, a policy which fights battles instead of writing notes. According to this view, to leave a great military enterprise, or the plan for one, to a *purely military judgment and decision*, is a distinction which cannot be allowed, and is even prejudicial; indeed, it is an irrational proceeding to consult professional soldiers on the plan of a war, that they may give a *purely military opinion* upon what the Cabinet should do; but still more absurd is the demand of theorists that a statement of the available means of war should be laid before the General, that he may draw out a purely military plan for the war or for a campaign, in accordance with those means. . . . None of the principal plans which are required for a war can be made without an insight into the political relations, and, in reality, when people speak, as they often do, of the prejudicial influence of policy on the conduct of a war, they say in reality something very different to what they intend. It is not this influence, but the policy itself, which should be found fault with. If policy is right—that is, if it succeeds in hitting the object—then it can only act on the war in its sense, with advantage also; and if this influence of policy causes a divergence

¹ Book i. chap. 1, No. 27.

from the object, the cause is only to be looked for in a mistaken policy."¹

We can generally accept without serious contradiction what Clausewitz said up to this point. But he says also quite distinctly somewhere else, that policy is interwoven with the whole action of war, and must exercise a continuous influence upon it,² and against this the military have very often protested.

For our time it is above all important that Moltke, who knew Clausewitz's book thoroughly well and often liked to describe him as the theoretical instructor, does not follow him in this point. Moltke, in his essay on *Strategy* in 1871, gave his opinion as follows: "Policy makes use of war to gain its objects, it acts with decisive influence at the opening and at the end of the war in such a way as either to increase its claims during the progress of war or to be satisfied with lesser gains. With this uncertainty strategy cannot but always direct its efforts towards the highest goal attainable with the means at disposal. It thereby serves policy best, and only works for the object of policy, but completely independent of policy in its actions."

I refrain from discussing this point intimately, because it has been most carefully examined quite recently by General von Verdy in his *Studies on War*.³ He thinks that Clausewitz goes somewhat too far in his sentence that war under all circumstances is to be regarded not as an independent

¹ Book viii. chap. 6.

² Book i. chap. 1, No. 23.

³ *Studien über den Krieg* (tr.).

thing, yet he can neither entirely side with our great strategist. He shows with convincing clearness, especially in the example of 1864, that the influence of policy may not only be important during the course of operations, but at frequent occasions even most decisive.

I confess that just this treatise has again convinced me of the correctness in every respect of Clausewitz's views. I have the conviction that Moltke, when he wrote the above-mentioned lines, was still not quite free from the ill-humour caused by his well-known conflict with Bismarck in the days of Versailles, and we have here before us quite an exceptional case, where this uncommonly unselfish man was not completely free from bias. It is in itself painful to be obliged to side with one party in a conflict between Bismarck and Moltke, but he who seriously strives after truth must not even thereby be deterred. Bismarck was perfectly right in this conflict of opinions when he demanded the earliest possible opening of the actual siege of Paris; for the earliest possible reduction of the hostile capital was an object equally important from a political and military point of view. On the other hand, it is an indisputable fact that Moltke, during the latter part of September, thought that the end of the war was *near at hand*, and that he expected to be home in Germany in October. It is furthermore a fact that he only very gradually changed his views. As one of the main proofs against the possibility of carrying out Bismarck's idea, it is usually advanced that it was impossible to have ready in the Artillery Park, at such an early period,

enough ammunition to ensure real success under all circumstances, and that an interruption in the attack and thus a certain triumph of the besieged would not have been out of the question. This is, however, according to my opinion, not at all to the point. It would have been sufficient to organise railway traffic and ammunition columns to such an extent that the daily amount of ammunition required could have been brought up. As soon as this was ensured, an ammunition park of moderate size near the fortress would have been all that was wanted. And such an organisation of railway traffic and ammunition columns could certainly have been brought about earlier than it was, if only the superior command, with all the weight of its authority, insisted upon and was fully convinced of the absolute necessity of such a measure. I cannot help saying, therefore, in spite of all the reasons which have been already said against it, that Moltke's hopefulness of an early capitulation of Paris must certainly have had a great influence on this matter. But any one who can imagine the anxiety which the responsible leader of our foreign policy must have felt at the time, when the French tried their utmost to bring about foreign intervention in our struggle, cannot deny Bismarck the right to intervene in questions where *strategy itself becomes politics*.

The second place in my sketch of Clausewitz's theory I must at once assign to the following sentence: "*The destruction of the enemy's military force is the leading principle of war, and for the*

whole chapter of positive action the direct way to the aim."¹

We know this truth and its value already from what has been said about the Napoleonic method of war and about Jomini, and for that reason it would really not be necessary for me to dwell upon it any longer. But, as I have already mentioned, Professor Hans Delbrück maintains that Clausewitz had intended to revise his book in such a manner that also the peculiar method of operations of the eighteenth century would have received his full attention—namely, that kind of strategy which was afraid to fight a battle, and which, according to Delbrück's own words, "*aimed more at exhausting and enduring than at annihilating the enemy*, and for which the occupation of ground and of good positions, so indifferent to us to-day, were of real importance. This kind of strategy should and ought therefore to have been considered, and not only the tactical decisions."² But the way in which we are to understand this we gather from the fact that Delbrück declares Daun's method of carrying out a strategic attack, which knows hardly anything about annihilation of the enemy's military forces, as absolutely justified by the circumstances of the time. And since Delbrück is undoubtedly one of the most prominent experts in military history, and since his opinions about the theory of war are justly listened to by many, I must here furnish the proof that Clausewitz did

¹ Book iv. chap. 11.

² *Magazin für Preussian History and Geography*, 1881, vol. xi., xii. pp. 555, 568, 572 (*Zeitschrift für Preussische Geschichte und Landeskunde*).

not at all share Delbrück's views in regard to Daun, and that, owing to a principle which we will now discuss, he absolutely repudiated Daun's method.

We find, then, in the first instance, the following paragraph when discussing the efforts to be directed to the preservation of one's own military forces: "It would therefore be a great error in the fundamental idea to suppose that the consequence of the negative course is that we are precluded from choosing the destruction of the enemy's military forces as our object, and must prefer a bloodless solution. The advantage which the negative effort gives may certainly lead to that, but only at the risk of its not being the most advisable method, as that question is dependent on totally different conditions, resting not with ourselves but with our opponents. This other bloodless way cannot, therefore, be looked upon at all as the natural means of satisfying our great anxiety to spare our forces; on the contrary, when circumstances are not favourable to that way, it would be the means of completely ruining them. *Very many Generals have fallen into this error, and been ruined by it.*"¹ And furthermore: "Manœuvres and marches are combined, the object attained, and at the same time not a word about combat, from which the conclusion is drawn that there are means in war of conquering an enemy without fighting. The prolific nature of this *error* we cannot show until hereafter."² "Forgetfulness of this [the principle of annihilation] led

¹ Book i. chap. 2 (italics by the author).

² Book ii. chap. 1.



to completely false views before the wars of the last period, and created tendencies as well as fragments of systems, in which theory thought it raised itself so much the more above handicraft, the less it supposed itself to stand in need of the use of the real instrument—that is, the destruction of the enemy's force."¹

"In this way, in the present age, it came very near to this, that a general action in the economy of war was looked upon as an evil, rendered necessary through some error committed, as a morbid paroxysm to which a regular prudent system of war would never lead: only those Generals were to deserve laurels who knew how to carry on war without spilling blood, and the theory of war a real business for Brahmins—was to be specially directed to teaching this. Contemporary history has destroyed this illusion, but no one can guarantee that it will not sooner or later reproduce itself, and lead those at the head of affairs to perversities, which please man's weakness, and therefore have the greater affinity for his nature. Perhaps, by-and-by, Buonaparte's campaigns and battles will be looked upon as mere acts of barbarism and stupidity, and we shall once more turn with satisfaction and confidence to the dress-sword of obsolete and musty institutions and forms. If theory gives a caution against this, then it renders a real service to those who listen to its warning voice. May we succeed in lending a hand to those who in our dear fatherland are called upon to speak with authority on these matters [we should

¹ Book iv. chap. 3.

think, then, to the Statesmen and Generals], that we may be their guide into this field of inquiry, and excite them to make a candid examination of the subject. . . . Let us not hear of Generals who conquer without bloodshed. If a bloody slaughter is a horrible sight, then that is a ground for paying more respect to war, but not for making the sword we wear blunter and blunter by degrees from feelings of humanity, until some one steps in with one that is sharp and lops off the arm from our body."¹ After all these utterances on the historical art of war of the eighteenth century, it is not surprising to hear Clausewitz speak in his strategical review of Gustavus Adolphus of the courageous spirit of that age, "which is surely more valuable than the spurious art of later wars."

And now his personal opinion about Daun: "If, in many wars in which only a moderate amount of elementary force is displayed, such strategic manœuvring very often appears, this is not because the commander on each occasion found himself at the end of his career, but because want of resolution and courage, and of an enterprising spirit, and dread of responsibility, have often supplied the place of real impediments; for a case in point, we have only to call to mind Field-Marshal Daun."² "We hardly ever see Daun's offensive make its appearance, except when Frederic the Great invited it by excessive boldness and a display of contempt for him (Hochkirch, Maxen, Landshut). On the other hand, we see Frederic

¹ Book iv. chap. 11.

² Book vi. chap. 24.

the Great almost constantly on the move, in order to beat one or other of Daun's corps with his main body. He certainly seldom succeeded—at least, the results were never great—because Daun, in addition to his great superiority in numbers, had also a rare degree of prudence and caution; but we must not suppose that, therefore, the King's attempts were altogether fruitless. In these attempts lay rather a very effectual resistance; for the care and fatigue which his adversary had to undergo in order to avoid fighting at a disadvantage neutralised those forces which would otherwise have aided in advancing the offensive action. Let us only call to mind the campaign of 1760, in Silesia, where Daun and the Russians, out of sheer apprehension of being attacked and beaten by the King, first here and then there, never could succeed in making one step in advance."¹ To this I must remark, that such caution and wariness with vastly superior numbers must, in the light of the whole contents of Clausewitz's theory, be considered as a complete failure of generalship; and, therefore, his final opinion on Daun reads as follows: "Thus there was [according to the wrong views of the times] eminence and perfection of every kind, and even Field-Marshal Daun, to whom it was chiefly owing that Frederick the Great completely attained his object, and that Maria Theresa completely failed in hers, notwithstanding that, could still pass for a great General."² "Let us only think of the result of the Seven Years'

¹ Book vi. chap. 30.

² Book viii. chap. 3, B.

War, in which the Austrians sought to attain their object so comfortably, cautiously, and prudently, that they completely missed it."¹

If Delbrück thinks that the whole system of war of the eighteenth century would have been altogether insufficient to conquer Prussia, and that even a much more superior man than Daun would have been unable to subdue Frederic, then Clausewitz certainly does not share that opinion. The extent of their means would surely have enabled the Allies to gain their object, but their dread of hazarding a battle prevented them from entering upon the only possible way to arrive at their object. Delbrück, in that essay, raises the question, What might have happened if Daun, with his superior numbers, had boldly made for the King? and he answers it to the effect, that Daun would have got a thorough thrashing. This answer, however, I do not consider at all as a final solution. We perfectly agree that Frederic might have had an opportunity, perhaps, of gaining one or two more victories; but there can generally be no doubt that an energetic use of the allied military forces would have been the really efficient means of striking down finally even this splendid hero. Without Blücher's cheerful enterprise, Napoleon would never have been conquered. If Daun had been as fond of fighting as Blücher, he could have counted upon being victorious. "The destruction of the enemy's military force is the leading principle of war, and for the whole chapter of positive action the direct way to the aim."

¹ Book viii. chap. 9.

This sentence ought to have also applied to Daun, if he wished to gain his object in an offensive war which was waged politically with the object of annihilating the enemy. It was not enough for the great positive aim of Austria to direct her own efforts more to tiring out the adversary and maintaining her own staying power than annihilating him; it was not enough to be satisfied with the occupation of country and covering positions.

If one of the two opponents in this great struggle of the eighteenth century was temporarily able to attain his ends by such efforts, it was Frederic, *because he was on the defensive*. The correctness of this remark will become apparent when we consider the peculiar way in which Clausewitz compares attack and defence, which forms another main part of his work and pervades the whole system of his ideas.¹ "The defensive

¹ I intentionally refrain from entering into details of Frederic the Great's personal relationship to the art of war of his time, as this would lead me entirely beyond the limits which I have traced out for myself. Delbrück represents in this respect the view that Frederic's superiority over his contemporaries was not so much based upon his peculiar perception of the nature of war, in which he was far in advance of his time, than rather upon the greater force of his character. I did not completely reject this opinion twenty years ago, and can to-day even go a step further and confess that Delbrück's conception of Frederic shows us the hero as a man completely of one mind, while the contrary opinion will still have to account for many inherent contradictions in his words spoken at various times and at various occasions. I will therefore raise no objection if Frederic is looked upon as the genuine and exact representative of the strategy which really fell to the share of the eighteenth century. But we must then lay the more stress upon the fact that his opponents were very far removed indeed from that strategy, his opponent Daun not less than all the rest. They all were suffering from that predilection for manoeuvring which Bülow afterwards formed into a learned system, and that is the reason why they missed their aim.

is the stronger form with a negative object; the attack is the weaker form with the positive object."¹

It is strange! We Germans look upon Clausewitz as indisputably the deepest and acutest thinker on the subject of war; the beneficial effect of his intellectual labours is universally recognised and highly appreciated; but the more or less keen opposition against this sentence never ceases. And yet that sentence can as little be cut out from his work *On War* as the heart from the body of man! Our most distinguished and prominent military authors are here at variance with Clausewitz. General Meckel says: "The resolution to act on the defensive is the first step to irresolution."² General von Blume declares: "The strategic offensive is therefore the most effective form of conducting war; it is the form which alone leads us to the final aim, whatever may be the political object of the war, whether positive or negative."³ General von der Goltz thinks, in his *The Nation in Arms*, that "the idea of the greater strength of the defence is, in spite of all, only a delusion"; and he concludes that part of his work with the sentence: "To make war means attacking."⁴ In his latest work, *The Conduct of War and Leading of Troops*, I do not any longer find such a pronounced antagonism towards

¹ "Notice," and book vi. chap. 1.

² *General System of Leading Troops (Allgemeine Lehre von der Truppenführung)*, p. 35.

³ *Strategy*, p. 201.

⁴ Pp. 276, 284.

Clausewitz; yet even in that book he maintains the same fundamental idea.

One ought certainly to think twice before opposing such weighty voices, and I doubtlessly expose myself to the danger of being taken for a highly theoretical man. Yet I will venture to do it in spite of all this, because I think it is absolutely necessary to side with Clausewitz.

First of all, it seems to me to be a matter of very serious importance not to shake the confidence in the defence. No General and no leader, of whatever rank, is in a position always to attack; and just when, owing to circumstances, he is forced to act on the defensive, it is in the highest degree desirable that he himself and his subordinates should have confidence in the defence. If, at some future occasion, our German Empire may have to fight for life in several directions, like Prussia in the Seven Years' War, we can surely not do without confidence in the power of defence; and it would be very regrettable if in large circles the feeling prevailed that irresolution was now beginning, and that our cause was already half lost. Next, I do not see why we should not do Clausewitz the justice to try to understand things exactly as he means them to be understood. According to his oft-repeated explanation, the defence consists not only in parrying a blow, but also in the counter-stroke, which forms just as much an integral part of the defence as the counter-thrust or second blow in fencing in connection with the guard. The signal feature of the

defence is the awaiting of the first onslaught, and not a passive submission or sufferance.

"A swift and vigorous assumption of the offensive—the flashing sword of vengeance—is the most brilliant point in the defensive; he who does not at once think of it at the right moment, or, rather, he who does not from the first include this transition in his idea of the defensive, will never understand the superiority of the defensive as a form of war."¹ And this conception of the defensive by Clausewitz has actually become part and parcel of our Army, as was shown by the splendid confirmation of our offensive spirit in all defensive situations in 1866 and 1870-1, and as is constantly proved by all our outdoor and indoor exercises. Everywhere—strategically and tactically—he who has been forced into a defensive attitude at once thinks how he can arrange a counter-stroke; indeed, we constantly witness that this notion appears much too early, and with a disregard of weighty objections. I am thus unable to discover any danger that the manner in which Clausewitz has contrasted attack and defence could in any way paralyse the spirit of enterprise or induce a General to abandon far-reaching aims. *"If the defensive is the stronger form of conducting war, but has a negative object, it follows of itself that we must only make use of it so long as our weakness compels us to do so, and that we must give up that form as soon as we feel strong enough to aim at the positive object. . . . Whoever feels himself strong enough to make use of the weaker form,*

¹ Book vi. chap. 5.

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*has it in his power to aim at a greater object; whoever acts before himself the smaller object, can only do so in order to have the benefit of the stronger form."*¹

In the above it is of course presumed that the superiority of the defensive form over the attack is a real fact. Here I must grant that the reasons which Clausewitz advances in his book on the defensive are not convincing without exception. He evidently had felt that himself; for in his last "Notice" on his work he distinctly says of this book (the sixth) that it is to be looked at as a mere attempt at a solution, and that he would have "completely remodelled it and have tried a different line." He can, however, only have meant the way in which he intended to prove his proposition, because he expressly mentions the axiom in question in the same essay amongst those truths, which may be safely upheld.

I have therefore no hesitation in pronouncing the second chapter of this book, in which the relation of attack and defence *in tactics* are treated, as somewhat of a failure. Clausewitz discusses there those moments of superiority the proper utilisation of which constitutes the real art of leading—namely, the advantages of ground, surprise and attack from different directions. He excludes strength and quality of the troops in his considerations, since they are given factors with which the General can reckon. And all these three factors of superiority he wishes to claim chiefly for the defence.

¹ Book vi. chap. 1.

It is undoubtedly correct that the advantages of ground mainly favour the defence. The defence selects its positions in such a manner that full effect is secured for the firearms, and that at the same time the troops obtain the best possible cover. This advantage has during the nineteenth century increased in a way which nobody could have at all apprehended at its beginning. Clausewitz, it is true, already expects "that country and ground will more than ever permeate every warlike act with their peculiarities"; but to what extent improvement in firearms would verify this sentence he certainly could not know. Nowadays *cover* plays an absolutely decisive rôle in all combats. It is cover alone which makes a thorough use of the long-range, rapid-loading firearms possible, and enables the weaker to cross swords with the strong. Every musketeer exactly knows to-day what tremendous advantage he has on his side when, lying under good cover, he can use his rifle with complete deliberation against his enemies, who have first to cross large spaces without any cover before their fire on a small target promises even the least effect. The advantage of country and ground is to-day so much in favour of the defence *that Clausewitz's utterances on that account alone are justified as regards Tactics.*

But our author has not been able to make it plausible that surprise and attack from different directions also favour the defence considerably more than the attack. He imagines the defence to be intimately acquainted with the selected battlefield, and therefore highly skilful in the utilisation of

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every advantage of ground, and he thinks that for this reason the defence, by the vigour and form of its attacks, would be able during an action to surprise and envelop the assailant to a much greater extent than he could arrange for in his general plan of attack. Clausewitz, however, overlooks that with proper training the troops of the assailant could also acquire great skill in the utilisation of ground, and that they would then not let slip an opportunity of acting here and there by surprise, and attack from different directions. And now as regards in particular the attack from different directions as arranged in the general plan of attack, its effect has been enhanced during the last half-century in a manner which in former days could not have been foreseen. *Concentric fire* from guns and rifles has become the means by which the attack is able to conquer victoriously even the most powerful defensive advantages of ground.

When contrasting attack and defence *in Strategy*, Clausewitz is again indisputably right when he adjudges the advantages of country and ground once more to the defence. All more important topographical objects like river-courses, marshes, extensive forests, mountains, are in the first instance obstacles to movements, which hamper the attack, and for that reason favour the defence, which does not at all preclude that the defence by an *improper* use of them may deprive itself of their advantages. As a rule it is such an improper use when the defender tries to turn to account this kind of ground as a position for decisive battle with the bulk of his Army. He will then almost always

find that he can only be successful if he maintains the whole line, but that victory will fall to the assailant as soon as he penetrates at one point. The *correct* use of such obstacle is to stand in rear of it, to block perhaps one or some of the crossings, but to leave others open or make only a pretence at defending them; the centre of gravity of the action, however, must lie in the counter-attack upon the first large body of the enemy which appears before our front after having forced the passage.

Immediately in connection with the advantages of country and ground must be mentioned the support which the defence finds in its own country by previous preparations on its theatre of war—that is to say, by fortresses and fortification, as well as by the proximity and abundance of its resources. In regard to this, we must nowadays count the railways of one's own country as a highly important and most effective factor in the advantage of the defence. The defence, moreover, reckons with the entire strength of the nation; it can employ organised Armies of the second, third, and fourth line, troops of the Reserve, Landwehr, and Landsturm, in a manner which it is impossible for the strategic assailant to do; and it can also arrange much easier for billeting and supplying troops, and is more amply furnished with news about the enemy. When Clausewitz wrote his book, the present idea of a people in arms was only in its infancy, and the amount of our preparations for war are far beyond his range of thought. These national forces, however, can only

assert themselves to their fullest extent in the defence of the home country.

He who defends his native soil can ultimately reckon on political support by other States in a far greater measure than the strategic assailant, because there is generally in political intercourse a distinct tendency of maintaining as much as possible the existing balance of power, and of preventing its one-sided displacement as far as is practicable.

Matters grow more difficult when it is a question of strategically attacking from different directions. In this respect Clausewitz entirely assumes the same standpoint as Jomini when he says: "In strategy, on account of the extent of space embraced, the efficacy of interior—that is, of shorter—lines is much greater, and this forms a great safeguard against attacks from several directions."¹ "When once the defensive has adopted the principle of movement (movement which certainly commences later than that of the assailant, but still timely enough to break the chains of paralysing inaction), then this advantage of greater concentration and the interior lines tends much more decisively, and in most cases more effectually, towards victory than the concentric form of attack. But victory must precede the realisation of this superiority; we must conquer before we can think of cutting off an enemy's retreat. In short, we see that there is here a relation similar to that which exists between attack and defence generally: the concentric form leads to brilliant results; the advantages of the eccentric are more secure. The former is the

¹ Book vi. chap. 3.

weaker form with the positive object; the latter the stronger form with the negative object."¹

I content myself with calling attention here to our former discussion of Jomini, where we looked upon the operation on the inner line mainly from the point of view of attack, which is advancing towards the centre of a widely extended strategic defensive front. Clausewitz shows it to us as that active mode of defence by which the Great King and Duke Ferdinand in the Seven Years' War, and Napoleon in the second part of his campaign in 1796 and in that of 1814, obtained such decisive results. I call to mind that within the most recent times people were inclined to look upon Benedek's situation on the Upper Elbe as a decidedly advantageous one, completely in the sense of the above-mentioned words of Clausewitz. Into the question how far this view may be justified at the present time I can, however, only inquire at a later stage.

And now as to surprise in the field of strategy. Clausewitz considers it an advantage that the defender can adopt his own measures in conformity with those of his adversary; that he has the advantage of the second hand²; and this assertion has always been earnestly challenged. It refers to a game of cards, where certainly the second hand has an undoubted advantage. Yet even at a game of chess it no longer holds good, and the opening move of an able player may secure a superiority which will be felt throughout the game. When

¹ Book vi. chap. 4.

² Book vi. chap. 28; and *Guide to Tactics*, No. 510.

fencing, the question is, to a great extent, already decided by the personality of the fencer, and this is still more apparent in a duel with cold steel. Finally, in war, where the deliberate calculations of every leader are accompanied by a constant conflict of contradictory sentiments, the lead, the initiative, is then an old and often-tried means to confuse and deceive the adversary. As Clausewitz himself attaches the greatest value to the rivalry of mental faculties, we must carefully consider the way by which he may have arrived at his conclusions. I am convinced that he strictly distinguishes here between the thoughts and feelings of the General and those of the Army. And in order to make clear to himself a General's views on this subject, he selected, as was his custom, or at least his preference in his considerations, Frederic the Great and Napoleon as his examples. We must grant him that these two great Captains, in all clearly defensive situations into which they were forced by circumstances, never allowed themselves to be imposed upon by the measures of their adversaries who had the lead, and that their game as second players was excellently adapted to turn the scales in their favour. Now, Clausewitz once says: "What genius does must be just the best of all rules, and theory cannot do better than to show how and why it is so."¹ We may, however, hesitate before generalising upon the moral superiority of such great Generals in such manner as is done by the theory of the advantages of the second hand.

¹ Book ii. chap. 2, No. 13.

As regards the sentiments of the Army, Clausewitz will not dispute the fact that a feeling of superiority springs from the consciousness of belonging to the attacking party. "But this feeling soon merges into the more general and more powerful one which is imparted by victory or defeat, by the talent or incapacity of the General."¹ We must also agree to this. Until, however, this superior and more powerful feeling of a victorious Army has developed—and after every long period of peace it must of course first develop again—until then that inspiring feeling of belonging to the attacking party is surely a highly valuable force, which must not be underrated, and which rendered us great service in 1866. ✕

Though we may not wish to concede a peculiar advantage to the play in the second hand, yet we must grant Clausewitz that, inherent in an expectant attitude, which is the characteristic feature of the defence, there is another and a substantial advantage. It is this one—"*that all time which is not turned to any account falls into the scale in favour of the defence. He reaps where he has not sowed. Every suspension of offensive action, either from erroneous views, from fear, or from indolence, is in favour of the side acting defensively. This advantage saved the State of Prussia from ruin more than once in the Seven Years' War.*"²

I must anticipate at this stage one result, the logical development of which should properly form part of the considerations of the attack, which, however, on the other hand, is so exceptionally

¹ Book vi. chap. 3.

² Book vi. chap. 1.

confirmed by every glance into history that I can confine myself to a very brief statement of the reasons. It is the experience "that the attack grows weaker with every step it advances."¹ The assailant has to invest and observe fortresses of the defender, occupy the country traversed in order to insure his authority there, and cover his own communication with the home country; lastly, he cannot replace his losses in action and on the march to anything approaching the amount as they occur. He cannot do it even to-day, and in spite of railways, since in an enemy's country the opening of the railway communications to the rear can hardly keep pace with the progress of a victorious Army. And because that is so, the rolling on of time itself is in favour of the defence, and for that reason it has a perfect right to embrace in its plans that "tiring and wearing out" of the adversary which in the eighteenth century quite wrongly played such an important part also in the attack. Finally, for those reasons the delay in coming to a decisive battle may for the defence become a sound means for attaining higher ends.

Clausewitz distinguishes four methods of resistance²:

1. "By attacking the enemy the moment he enters the theatre of war."

2. "By taking up a position close on the frontier, and waiting till the enemy appears with the intention of attacking it, in order then to attack him."

¹ "Notice," book vii. chap. 1, and book vii. conclusion.

² Book vi. chap. 8.

3. "By the Army in such position not only awaiting the decision of the enemy to fight a battle—that is, his appearance in front of the position—but also waiting to be actually assaulted."

4. "By the Army transferring its defence to the heart of the country."

The first two cases appear somewhat closely related; they can, however, be clearly enough distinguished. The very first is only characterised as strategic defensive by the non-crossing of the frontier, is as offensive as possible, and must in our days in all probability lead to tactically improvised actions. In the other case the General has not only considered it necessary to abandon an invasion of the enemy's country, but he means also to take advantage of country and ground to an extent which is impossible with the first-mentioned method. He disposes his forces in such a way that he can attack the adversary appearing in front of his position under especially favourable circumstances—*e.g.* when the adversary is still battling with such difficulties as are caused by the passage through a mountain defile or over a river.¹

¹ Since General v. d. Goltz, in *Krieg- und Heerführung*, is of opinion that a strategic defensive and tactical offensive attitude at one and the same time could hardly be imagined (p. 24), I would here call attention to the fact that our own situation brings this idea very much home to us. The French frontier towards us is so very powerfully strengthened by fortifications that we shall doubtless need our whole strength if we wish to overcome by strategic tactical offensive the resistance which we have to expect. On the other hand, in a war with two Powers, we may very well think of at once advancing against and attacking an adversary as soon as he debouches from the cover of his frontier fortifications and assumes offensive operations against us.

The third case is the real defensive battle, for which the ground is not only selected but also prepared, and the final act of which forms the powerful counter-attack.

The last method of resistance, the retreat into the heart of the country, aims immediately at the lowering of the strength of the assailant, and must as a rule, and at any rate with our present military organisation, lead at the same time to an immediate growth of our own forces. It is also that form with which the defender can most easily combine a strategic flank movement by turning aside from the main direction which leads to the centre of gravity of his own country. The farther back the point is situated on which the defence strives to bring about a favourable turn of affairs, the more territory, it is true, falls meanwhile into the hands of the assailant, and has to bear all the miseries of war; but then also the greater will be, of course, the consequences of the victory gained by the defence, and the more terrible will be the reverse for the assailant who has moved so far away from his own country. The greatest success which the defence has ever secured was gained in this way in 1812; the *complete* annihilation of the truly enormous offensive Army commanded by the most powerful and at the same time most experienced and most determined representative of strategic offensive was here the reward of such a method. Napoleon's world-empire, as a matter of fact, was wrecked by the *strength of the defence*, which becomes here apparent.

This knowledge is the more significant when we convince ourselves that Napoleon's mode of action in that gigantic struggle was perfectly correct—indeed, that it was the only possible one—and that every attempt to solve the problem in two campaigns would have been identical with an abandonment of the ultimate object. That such is the fact our Philosopher of War has irrefutably proved with that clearness which is so peculiar to him.¹ I now turn to Clausewitz's essays on the positive *form of war*, on *the attack*; and I hardly need specially mention for German readers that in them we find on every page Napoleon I.'s mode of viewing things—the practical instructor of that time.²

Victory in battle followed up by a vigorous pursuit—that is the gist of his maxims, just the same as it is the gist of Jomini's theories. Also Clausewitz lays renewed stress on the facts that tactical success on the battlefield must be the first and foremost object of all efforts, and that this success always retains its highest and utmost value under all circumstances. So also gaining the enemy's rear is looked upon as the first step to an enormous enhancement of success, and the battle with an oblique front is considered as the decisive

¹ Book ii. chap. 5; book viii. chaps. 4 and 9.

² A young French field-officer, Canon, in the *Journal des sciences militaires* of 1900, in a study on Clausewitz, has once more furnished a proof how difficult it is for our neighbours to understand another nation. According to his version, Clausewitz not only did not comprehend the Emperor in any way, but seems to be a perfect muddle-head, whom it is impossible to take seriously. We ought really to be glad, after all, if the sources of our strength remain for the French a sealed book also in the future.

means of forcing the enemy from his line of retreat and annihilating him in pursuit. And, lastly, it is distinctly stated that investments and sieges of the enemy's fortresses cause in a special measure a weakening of the attack, and should for that reason be as much as possible avoided.

On the other hand, there is certainly a very essential difference to be pointed out between Clausewitz and Jomini, which is to be found in the opinion held by both in regard to the nature of the strategical movement of turning an enemy's flank. Clausewitz is particularly careful not to accept the fundamental condition demanded by Jomini, which is to cut the enemy's communications *without endangering one's own*; he thus avoids formulating a demand which could really be fulfilled only in the rare cases where the geographical conditions are exceptionally favourable. He is rather of opinion "that battles formed with enveloping lines, or even with an oblique front, which *should* properly result from an advantageous relation of the lines of communication, are commonly the result of a moral and physical preponderance,"¹ and thus this theory of the attack keeps clear of all exaggerations of a geometrical principle. But of course he no longer considers it a particularly remarkable stroke of genius when a General, before the commencement of a somewhat hazardous strategical movement, adopts his measures in such a manner that at the eventual loss of his present communications he can reopen communication with his resources in another direction; he

¹ Book vii. chap. 7.

does not fall into ecstacy, like Jomini, about the "change of the line of communication," or about the new "*ligne accidentelle*," but only recognises therein one of those innumerable traits of character which a General has continually to exhibit, if he wishes to carry out an idea that in itself is extremely simple.

In the same measure as we are indebted to Clausewitz for the way in which he has in his book on the defence discussed the defensive value of river-lines and mountain-ranges, and especially for the thorough and convincing manner in which he has treated the nature of the defence of a river, so also are our thanks due to him for various definitions of terms and explanations in his book on the attack, which have become of great value in science. In these I include his essay on the different degrees of pursuit, but above all the discussion on the "Culminating Point of Victory,"¹ that point where the decrease of strength of the attack already mentioned threatens the danger of a turn in the tide, and where, therefore, even a powerful victor who is imbued with the greatest energy may find himself obliged to stay a further advance, and content himself with the preservation of what has hitherto been obtained and gained. For the purposes of our present examination I need not go deeper into these matters.

Instead of that I now turn to the question already touched upon of how Clausewitz intended to carry out the final elaboration of his work. In the notice printed at the head of his work *On*

¹ Book vii. chap. 5, and end of the book.

War, the author expresses himself to the effect that he would bear in mind more precisely the *two kinds of war*. "The two kinds of war are, first, those in which the object is the *overthrow of the enemy*, whether it be that we aim at his destruction politically, or merely at disarming him and forcing him to conclude peace on our terms; and next, those in which our object is merely to make some conquests on the frontiers of his country, either for the purpose of retaining them permanently, or of turning them to account as matter of exchange in the settlement of a peace. Transition from one kind to the other must certainly continue to exist, but the completely different nature of the tendencies of the two must everywhere appear, and must separate from each other things which are incompatible." From this point of view he intended first to elaborate the rough outlines he had at the time only prepared for the books on the Attack and the Plan of War, and not till then to revise the first six finished books, which treat in turn of the *Nature of War*, the *Theory of War*, *Strategy in General*, the *Combat*, the *Military Forces*, and the *Defence*.

Now, Delbrück thinks¹ that Clausewitz, when mentioning the second kind of war, where one wishes to make some conquests on the frontiers of one's country, had in his mind the historical strategy of the eighteenth century, and, indeed, not only the strategy of the great King, but also

¹ *Zeitschrift für Preussische Geschichte und Landeskunde*, 1881, Nos. 11 and 12, p. 555; and *Historische und politische Aufsätze*, by H. Delbrück, part iii. p. 10-12, 1890.

that of his enemies, and thus also that art of war which had more for its object a tiring and wearing out of the adversary than his overthrow, and manœuvring *more* than fighting. According to that view, Clausewitz, in his intended revision, would have had to cancel absolutely all his severe criticisms on the strategic errors of the preceding epoch of war, and especially those about Daun, which I have presented to the reader.

I am, however, of opinion that Clausewitz meant indeed to oppose to the attack which directs its efforts on the complete annihilation of the enemy an attack "with a limited object," but that for this attack with a limited object he also thought to apply his second fundamental principle: "*The destruction of the enemy's military forces is the leading principle of war, and for the whole chapter of positive action the direct way to the aim.*"

When, twenty years ago, I spoke about this subject, I wrote the following sentences: "Clausewitz perhaps wished in the first instance to give an alternate plan of war to that which had for its object the complete overthrow of the French by the supposed combined forces of Austria, Prussia, the rest of Germany, the Netherlands, and England—namely, in what manner the German Confederation, single-handed and hampered by suspicious neighbours, in fully displaying its strength towards one side, would have to use its forces in order to settle in another war with France the conflict on the enemy's territory, and thus to carry on the war in a sense offensively, but, owing to the disparity in numbers of both parties, still without the

probability of a third entry into Paris. They were, it may be, those ideas which, crystallising around such an example, he meant afterwards to hint at in the subject-matter which he had already elaborated, and which he intended to consider in the still unfinished and only outlined portions. If we closely follow Clausewitz's mode of treating his subject, he would then have carefully revised the attack with a limited object,' and this would have reacted upon the book on the defence as well as on the books of a more general nature. Therein we could perceive in a certain sense a greater perfection of his work. For the attack aiming at the complete destruction of the enemy certainly supposes somehow a real, indeed a considerable, superiority either in numbers, armament, organisation, or quality of leadership and troops; and with the keen competition among the Great Powers to remain on a level in those matters, a case can well be imagined where one Power may indeed feel strong enough to attack, yet only to an attack with a limited object—*i.e.* to an attack which, being conscious of its diminishing strength, voluntarily declines to follow up over *large areas* its first successes, and which rather lays stress upon retaining firmly in hand a well-concentrated Army at the culminating point of Victory."

The view expressed in those sentences has meanwhile been confirmed in a manner entirely to my satisfaction. For in an Appendix to *Moltke's Military Correspondence of 1859* a memoir of Clausewitz was published, which he had written in the

¹ The term is used in the outlines of the eighth book, chaps. 5 and 7.

winter of 1830-1. During that time in Prussia a war with France was thought to be imminent, and Clausewitz had prospects of acting in that war as Chief of the General Staff of the Commander-in-Chief, Field-Marshal Gneisenau. This memoir, written under those circumstances, and thus throughout from a practical point of view, is just such a plan of war for *the attack with a limited object* as I thought possible when I wrote the sentences above quoted; and in this plan of war the striving after battle forms everywhere the centre of his thoughts, and it never enters in the least the author's mind to look for covering positions by the aid of which the attack could gravitate around the strategy of wearing out and waiting.

The juxtaposition of both of Clausewitz's plans of war against France give us a sure clue to the solution of the question, in what direction he meant to revise his work *On War*, and whether the historical or the practical-instructional point of view was to prevail.

The plan of war¹ which aimed at the complete overthrow of France presupposes the general political situation at the time of the Holy Alliance, which permitted Austria and Prussia to employ almost their whole forces towards the West. To these forces must be added the four Confederate army corps of the other German States, the troops of the United (*i.e.* Belgium included) Netherlands, and an English auxiliary Army. These altogether amounted to 725,000 actual field troops—that is to say, without depot and garrison troops in the allied

¹ Book viii. chap. 9. Time it was written, probably 1828.

countries. Since their population together comprised about 75,000,000, the forces available for fighting in the first line amounted to about 1 per cent. of those millions, and according to the same, at that time generally adopted, scale a French field Army of 300,000 men had to be counted upon as immediately ready. Behind the French field Army there was, it is true, no organisation prepared in peace time like our Landwehr, but one had to reckon with the fact that the numerous French fortresses were able to make good the bulk of their garrisons from the—untrained—National Guards, and, besides, it could be calculated with certainty that during the campaign the field Army would receive *very considerable* reinforcements from those who became liable to serve during the current year and from volunteers. The French Army in peace was unusually richly endowed with officers and non-commissioned officers; it was thus able to provide its depot battalions and newly formed bodies with trained leaders, and there were undoubtedly still fresh in memory from the time of Napoleon all those energetic measures by the aid of which hundreds and thousands of men were in a comparatively short time sufficiently trained to fill their places with credit in the ranks of the well-disciplined Army.

The 725,000 allied troops could of course not cross the French northern and eastern frontier in one body. Fifty thousand Austrians had to remain at any rate in the Italian territories of the Empire; 25,000 English could opportunely threaten the extended French coastline, in order to detain there

considerably stronger forces of the enemy; lastly, Clausewitz deducts another 50,000 men for strengthening the garrisons of the frontier-fortresses. There remain then 600,000 men. The idea of assembling these as a single Army, which, according to Clausewitz's general view, would seem to him the most desirable arrangement, could not be entertained, as it would entail too many circuitous marches and too great a loss of time, and also the difficulties of supply appeared too great.

Therefore 300,000 Prussians, North Germans, Dutch, and English were to be assembled in the Netherlands, more exactly in Belgium, and 300,000 Austrians and South Germans at the Upper Rhine. The first-mentioned Army was to march straight on Paris, which at that time was still unfortified; the other Army was to penetrate in a general direction across the Upper Seine to the Loire above Orléans. In thus fixing the directions generally, one could be certain to meet the enemy's main forces on the way, particularly if there is the wish and the desire to meet them and to beat them. The Army coming from Belgium had to cover about 135 miles to Paris, the Army coming from the Upper Rhine a little over 225 miles; not before the former had advanced beyond Paris further south could they gain touch with each other. Up to that moment they were not to depend on each other; each was to act completely independent, as if it was alone upon earth, Clausewitz thus looking upon those widely separated districts, through which both Armies would be moving at the beginning of the campaign, as two completely different theatres.

of war. "Both our attacks have each their aim; the forces employed for that object are most probably considerably superior in number to the enemy. If each vigorously advances along its path, they cannot fail to favourably react upon each other. If one of the two attacks were unsuccessful because the enemy had distributed his forces too disproportionately, it may reasonably be expected that the success of the other will automatically repair this misfortune; and that is the true co-operation of both. A co-operation extending to the events of individual days is not feasible at their distance apart; nay, they even don't need it, and therefore their immediate or rather direct communication is not of so great a value." Still, however, an intermediate link, chiefly composed of cavalry of inferior strength (10,000 to 15,000 men) was to keep the space between both Armies clear of hostile partisans. "We are firmly convinced that in this way France can always be defeated and chastised, if it should dare once more to show that insolence which Europe suffered for 150 years. Only beyond Paris, on the Loire, can we exact those guarantees which are indispensable to the peace of Europe."

And now the attack with a limited object of the winter of 1830-1!

After the July Revolution in France all Europe was everywhere in a seething ferment. The Belgians had torn themselves away from Holland, and wanted as their King a Prince of the House of Orléans, a member of which had just then ascended the throne of France. The Poles had risen and gained some

initial successes, which obliged Russia to adopt extensive measures, and would probably cause the movement to spread over the Polish provinces of Austria and Prussia. Lastly, in Italy a network of secret societies would create for Austria or their allied smaller German States serious difficulties the moment they should themselves be engaged in a great war. Austria could therefore be very little depended upon in a war with France. The military forces of the Netherlands were greatly reduced, and the co-operation of England was looked upon by Clausewitz as doubtful. The French forces, however, were augmented by those of Belgium, and in addition it may be assumed that the so recently successful revolution would enflame the French nation to a passionate participation in the defence of their country.

The previously discussed plan of war was completely negatived by the altered conditions. But it had to be considered whether it would be advisable to assemble all available German forces as *one* Army on the middle course of the Rhine, and thence to advance on Paris (225 miles). The Dutch forces in that plan would of course play no part; they even would not be sufficient effectively to prevent a likely Belgian-French diversion against the quite open and unprotected Rhenish province. Furthermore, owing to the weakness in organisation of the confederate German forces, it could not be hoped that the South German States would, on the Upper Rhine, rely upon the protection afforded by that river; it must be rather expected that strong forces would be considered necessary by

them for defensive purposes there. Clausewitz for that reason doubts that it would be possible when advancing from the Middle Rhine to appear before Paris in sufficient strength—that is to say, with a force which would to some extent guarantee victory in a decisive battle, and with which it would be still permissible to venture even beyond Paris. An offensive, however, which had to retrace its steps before the gates of Paris, or could not even reach them, would mean a complete fiasco of the whole enterprise.

Clausewitz therefore proposes to make the conquest of Belgium the real object of the attack. "That country of moderate size and large resources is enveloped by Holland and Germany; the Army kept concentrated in that country after its conquest would not be an advanced guard pushed far ahead into an enemy's country, and therefore this conquest could, under ordinary circumstances, be permanently maintained. Public opinion in Belgium, however passionate and hostile at first after the revolt, was certainly not unanimous; especially at Antwerp and Ghent a political reaction in this respect might be expected; this also would facilitate effective occupation. All these circumstances of course would contribute to a more easy conquest. The French may be ever so strong in Belgium; they still would be always weaker, as matters stand, than in their own country. If once in possession of the Meuse as far as the Sambre, the conquest of Belgium would be practically complete; for even if the fortresses Mons, Tournay, Courtray, etc., in a straight line along

the frontier, were not in the hands of the Allies, they could still maintain themselves in Belgium. On the Meuse, however, Venlo, Liege, and Namur would have to be captured, probably the latter fortress only offering some resistance. Hence we believe that if the arms of the Allies were able to gain a victory somewhere, and this must necessarily be supposed when an offensive is intended, that victory would be attained by the conquest of Belgium as the easiest and most assured result."

The idea that it is above all a question of victory in battle is frequently repeated in the memoir with a directness which precludes any and every doubt, and nowhere is there even the slightest indication from which an inclination to the more passive form of defence, that is to say, for strong or even unassailable positions, could be discerned. Of course, after victory in the decisive battle the capture of some fortresses becomes paramount, and during that time the main Army must be prepared to beat off hostile attempts at relief. To do so, however, it can make use of the most active forms of defence by attacking the enemy as soon as he penetrates into our own theatre of war; it absolutely need not confine itself to the maintenance of defensive positions.

Clausewitz assumes that Prussia will be obliged to leave two of her army corps behind: the one furthest from the Rhine, the 1st Corps, to maintain order in her Polish possessions, and the Guard Corps, which takes the longest time to mobilise, as an eventual reinforcement to the 1st Corps or for

other unforeseen events.¹ With seven Prussian corps and the two North German Confederate corps (9th and 10th) he intends to move from the Prussian Rhenish Province into Belgium, and there seek for decisive battle. He expects to fight that decisive battle at the latest when crossing the Meuse; he takes, however, into consideration the case of meeting the French sooner. To the South German forces (7th and 8th Confederate Corps) and the Austrian contingent, the strength of which appears to him altogether doubtful, he assigns the immediate protection of South Germany, and hopes that this Army will concentrate with its main body in the Palatinate, and thence advance towards the Upper Moselle, thereby inducing the enemy to divide his forces. The more boldly such a movement could be carried out, the more advantageous it was bound to prove itself; yet it would remain always a subordinate affair, and its eventual failure could hardly produce any decisive effect upon the course of the main events as they had been planned.

The closer we examine this plan of war, the more we become aware of the extraordinary clearness of conception and keen sense for *realities* which distinguish Clausewitz, and also the more we must become convinced that in 1831 the plan which he then proposed was without restrictions the only correct one. That which was aimed at

¹ It appears from the so-called diary of Clausewitz of that period that he vainly combated, at the proper quarters, the idea of leaving behind another army corps in addition to the 1st; here he has reckoned with the actual facts. Vide Schwartz, *Clausewitz*, book ii. pp. 308 and 311.

remained within the compass of possibility and still gave an opportunity for great and perhaps brilliant victories. This plan assigned to the Prussian Army, under Gneisenau's well-proved leadership, at once the main task, and thereby prepared in the best possible manner the way for Prussian politics. It was an attack with a limited object, which might, however, have become an important stage on the road which Prussia has traversed in our days. Since the majority of the most prominent military authors of our time decisively uphold the principle that in war the efforts must always be directed to their utmost limits, and that systematically falling short of that line betrayed more or less weakness, I cannot but declare most emphatically that the wisdom of Clausewitz's views have inspired me with a high degree of admiration.

Now, being of opinion that the final elaboration of the work *On War* would have been carried out on the above lines of contrasting the two different modes of attack, which, however, remain based upon the same maxim that the destruction of the enemy's military forces is the first and foremost means of success, yet *one* objection of some weight may be advanced against me—namely, there is in the outlines to the seventh book a short chapter (xvi.) which speaks of “attack of a theatre of war without the view to a great decision,” and in which a battle is scarcely mentioned, or at least is not placed in the foreground, which therefore, without any doubt whatever, has served the author with the object of making it perfectly clear to

himself what the ideas were which prevailed in the eighteenth century. To this objection I can only reply that this chapter is just one of those essays which originated *without any preconceived design*, as Clausewitz quite expressly tells us, and that therefore we must not be astonished too much if we find it rather contradictory to other parts of the work. If, however, we examine in the book on the plan of war—that is to say, in the outlines to this book—those parts which treat of the attack with a limited object,¹ it becomes at once apparent, in spite of their sketchy character, how well they apply to the now known plan of war of 1831. And for that reason I have no doubt that in the intended revision of the seventh book the attack of a theatre of war without a view to a great decision would have been dropped, and would have made room for the attack with a limited object. *The moment this change is made, the whole book is a perfect production, an absolutely finished and harmonious structure, and a theory of war for Statesmen and Generals in conformity with the scientific knowledge and experience of 1830.* Delbrück himself lays stress upon the fact that Clausewitz was first and above all a military author, and only in the second instance an historian.² And from this military standpoint Clausewitz was bound to have intended the elaboration of his work just on the lines which would most answer the practical wants.³

¹ Book viii. chap. 5 and 7.

² *Historic-political Essays*, part iii. p. 9.

³ In chap. viii. it will be shown that also Moltke considered the attack with a limited object as a necessary method of conducting war.

So far as we have become acquainted with the main principles of this the most important of all theories of war we may be allowed, with some justification, to look upon it as of lasting value. But I must now introduce the patient reader into one more part of that theory of which we cannot say the same.

I have already mentioned that Clausewitz completely shares Jomini's views about the superiority of the inner line of operation over the exterior lines. He also considers an advance with divided forces with the intention of bringing about a strategic envelopment very risky and only advisable when there is distinctly a great superiority: of course he does not mean only larger numbers, but a preponderance in the sum-total of all the material and moral forces. Clausewitz further allows that operating on exterior lines is justified when the original distribution of the military forces is such that their immediate concentration would entail too long circuitous marches, and thus too much loss of time.¹ His views on the superiority of the situation when operating on the inner line between two adversaries culminates in the sentence, "It is more difficult to make them prisoners than to cut one's way through them."²

When referring to the passage over the Beresina, he remarks how difficult it really is to cut off an Army, "as the Army which was intercepted in this case under the most unfavourable circumstances

¹ Book viii. chap. 9, and at many other places—e.g. i. 147, 194 ii. 4, 130, 208, 311; iii. 13, 32, 160, 188.

² Book v. chap. 16.

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that can be conceived still managed at last to cut its way through."¹ In his *Guide to Tactics* he considers the advantages and disadvantages of tactical envelopment and tactical penetration with the utmost care. Breaking the line in the centre is made conditional on an excessive extent of front of the enemy; as soon as this condition is given—and it will easily arise, if the enemy aims at an enveloping counter-attack—breaking the line in the centre is unhesitatingly preferred, because the General would retain a greater influence on the course of events.² The same views prevail in the maxims for the defensive battle.³ Clausewitz, it is true, demands great depth in the disposition of the troops, so as to be able to envelop and enfilade a likely enveloping movement on the part of the assailant, and thereby to obstruct and break its effect; yet the real counter-attack, the decisive blow in battle, he imagines to be delivered in the first instance by an advance from the centre of the defensive line against a weak spot in the front of the assailant. Napoleon's counter-attacks against the heights of Pratzen on December 2nd, 1805, and against Liebertwolkwitz and Gross-Pössnau on October 16th, 1813, are for him unmistakably the only typical examples, and he does not omit to point out that the separation of the beaten portions of the assailant is the valuable fruit of victory which is gained under such circumstances. And Clausewitz could not otherwise

¹ Book viii. chap. 9.

² *Guide to Tactics*, No. 500, etc.

³ Book vi. chap. 9.

but think thus if he correctly gauged the proper relation between fire-action and the combat with cold steel as it existed in his time! What did it really mean at that time, this advantage of a twofold effect of fire when enveloping the enemy? The old smooth-bore flint-lock bullet carried at the most a tenth part of the distance at which our small arms can already be usefully employed; and its loading was a clumsy process and subject to many accidents, in wet weather even altogether impossible. The old cannon-ball ranged also only over a fifth or a fourth part of the space which we now keep under fire with our present shrapnel, and at that time they had not yet an idea of the accuracy with which we can observe to-day the effect of every single shot, and no idea of the certainty with which we are able to obtain a decisive effect within the shortest time possible. Lastly, at that time they had considerably less artillery, and the advantage of envelopment, so highly prized in our day that it ensured the space necessary for the employment of a greater number of guns, did not come into consideration at all at that time.¹

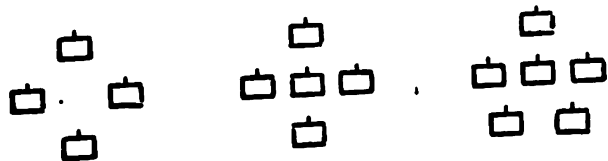
On the whole, then, they had good reasons in former times to feel very anxious about being broken through in the centre when arrangements were made for enveloping the enemy, and this anxiety was bound to lead generally to a disposition of the Army in greater depth than breadth, and to placing the reserves behind the centre. I remind the reader of my explanation in the chapter

¹ *Guide to Tactics*, No. 373.



on Jomini, and can on that account be here quite brief.

Clausewitz wants to give to an Army of four, five, or six units (army corps or divisions) the following form for operating¹:



In case there should be more units, they would, in his opinion, as a rule be specially employed to protect the flanks, or for similar purposes. On the other hand, eight units without any special reserves of Cavalry or Artillery he holds to be the largest number that can still be immediately directed by one Commander-in-Chief. And as it is throughout his maxim to have whenever possible on one theatre of war only one single Army,² he wants to make the different army corps stronger when the Army is greatly superior in numbers; but with a weak Army he abandons the organisation into army corps, and places the divisions directly under the Commander-in-Chief.

I do not go further into this question, as it has no practical value at the present moment. Our Prussian Army organisation, from the time after the war of liberation, is built upon the firm base of army corps, which already in peace time are almost formed in the same manner that they

¹ Book v. chap. 5, and Appendix ii. *On the Organic Division of Armed Forces.*

² Book v. chap. 2.

would be in war, and this has undoubtedly stood the test. I shall have to show at a later stage that this army corps organisation is not at all so arbitrary as Clausewitz may have thought. I will only remark here that an Army intending to deploy for battle from such a great depth as above indicated, with the view of enveloping the enemy, needs certainly for that object a special disposition for battle, and probably one of its units will have to make a kind of flank march also in close proximity to the enemy. Clausewitz proclaims the oblique front as the most effective strategic form of attack—that is to say, when the whole Army with one united front falls upon the strategic flank of the enemy and, if victorious, cuts him from his line of retreat. But where such a situation cannot be brought about, where our advance has brought us before the strategic front of the enemy, then he sees in the tactical envelopment, in the formation of an offensive flank, the proper means of effectually preparing to push the enemy from his line of retreat, and he distinctly explains that tactical envelopment need not at all be the consequence of strategic envelopment, and had not at all to be prepared long beforehand by a corresponding advance of divided forces.¹ He is thus of opinion that the lateral movement of part of the Army against the flank of the enemy could without any difficulty still be carried out as initiated by the plan of battle; and in order to understand this opinion, we must again bear in mind the difference between the fire-effect of then

¹ Book vii. chaps. 7 and 15.

and now. In those days a comparatively short movement made it still possible for a considerable portion of the Army to gain the defender's flank; to-day a lengthy and troublesome operation would be necessary for the same object, and its successful execution could only be counted upon if the defender remained entirely passive, and would neither think of a counter-attack nor of a corresponding movement of his forces to the threatened flank.

And herewith I can conclude this long chapter on Clausewitz. His acute and logical reasoning has developed more clearly and plainly the nature of war than had ever been done before, and his knowledge of the human soul has enabled him to be a really practical teacher on this subject, where criticising is so easy and acting so difficult. And where we are obliged to decline to follow him it is simply and solely because meanwhile techniques have produced inventions which in his day could never have been dreamt of.

CHAPTER VI

WILLISEN

HOWEVER great the impression was which the work of Clausewitz created in Germany, the principle of a geometrical theory of war with strictly positive objects could not be wiped out at one stroke. Partiality for a learned form and hankering after a "clever sentence, which means something," had equal shares in keeping this principle alive. And its latest advocate was just the man to keep it alive by reason of his talents as well as by reason of his failings.

Wilhelm von Willisen, junior to Clausewitz by ten years, had taken part in the campaign of 1806 in the Prussian Army; he was next obliged to leave that service as a subject of the newly created kingdom of Westphalia, and then studied at Halle. In 1809 he evaded the impending conscription for King Jérôme's Army and fought in Austria against the French. Two years later he received a commission in the Prussian Army. From 1818 to 1815 he belonged to the General Staff of Blücher's headquarters.

His *Theory of Great War*,¹ which was published in 1840, is the elaboration of lectures which he had previously delivered at the War School in

¹ *Theorie des grossen Krieges* (tr.).

Berlin (now the Staff College). The book betrays a spirit trained in the School of Hegel's Philosophy, with all its advantages of a thorough practice in developing and analysing the most varied intellectual subjects. His expositions are often somewhat dazzling, and as I cannot agree with the tendency of the book, I consider it a fortunate circumstance that the positiveness and adroitness of the author in handling his subject has in one place seduced him to play catch-ball with four terms, and, by throwing them about in a certain fashion, to form ever-new and ever-surprising figures. In his Indian jugglery he has arrived at an extreme point where an effect is produced which is the reverse of what was intended. By such an example it is brought home to us how cautious we must be when we attempt to develop a theory of such an uncommonly practical subject as War. Willisen is undoubtedly right when he says in his preface: "The thought, that which has been thought, or that which is to be thought (and this alone is the theory of a practical man), is always that which comes first. There can be no practical truth, no truth from without, which has not first been inwardly discerned, and this inwardly seeing or discerning signifies literally theory, and nothing else. . . . Theory is therefore the doctrine, the enunciation of what is true, the development of what is true in a thing. A doctrine, also, which begins with outward experience and deduces everything from it, becomes theory as soon as it tries to arrive at certain results, which it is bound to do in order to become a doctrine." But—and in this way we

must continue the sentence to-day—there is certainly an enormous difference between the systems of two investigators, of which the one (Clausewitz) at every step is looking upon experience with a scrutinising eye, while the other (Willisen) is irresistibly hurrying to the final goal from one conclusion to another, and only casually casting a furtive glance on the world of facts.

If we study the *Theory of Great War*, we are immediately struck by the fact that Willisen usually quotes historical examples only in that slovenly way which Clausewitz has characterised as a downright misuse, because most facts which are merely touched upon in a very cursory manner may be used to support the most opposite views.¹ And next we must recognise that Willisen, just like Jomini, holds entirely wrong views about Frederic the Great. "If the great King in his studies," says Willisen, "had hit upon the great Generals of the seventeenth century instead of upon the barren campaigns of Marshal Luxemburg, and if his strategic conceptions had thus assumed the same lofty character as his tactical ones, he would have achieved still greater things than Napoleon, as he, at the same time, would have appeared in the field with an unchallenged tactical superiority of his troops which was entirely absent in Napoleon's Army. The magazine fetters with which he needlessly tied himself, and with which his adversaries, as luck would have it, dazzled by his fame, tied themselves up still closer, made every great success which can only be gained by

¹ Clausewitz, *On War*, book ii. chap. 5, conclusion.

strategy impossible. And these fetters he could have cast off at any moment; at his time it was as easy to do so as at a later period. The country could have supplied his small Armies, while engaged in rapid pursuit after one of his great victories, still better than the large Armies of the later period; in that case each of his three Silesian Wars would have rapidly come to an end in Vienna. After Mollwitz, after Hohenfriedberg, before and after Lowositz, nothing prevented him from doing so, except the want of that idea which made Napoleon so great."¹ That Frederic, in his second Silesian War, vainly attempted to free himself from the fetters of the system of operation which prevailed in his time—of that fact Willisen knows just as little as Jomini. And when Willisen, who, like Jomini, repudiates systematically operations on exterior lines, calls Frederic's advance into Bohemia in 1757 forthwith "the faultiest design the great King had ever conceived,"² then surely, also, this example shows how deficient he was in judging facts calmly and correctly. His criticism is the more surprising since Clausewitz had already pointed out that the moral factors of superior generalship and superior efficiency of troops, surprise, and self-reliance, had played quite a different rôle in 1757 than the geometrical form of attack,³ and since in his excellent chapter on criticism he had also urgently cautioned us against bestowing praise or blame before having a full knowledge of all the circumstances. There can be, therefore, no doubt that Willisen had not arrived at that independence and

¹ I. 108.² I. 68.³ Book viii. chap. 9.

reliableness of historical criticism which fills us over and over again with admiration for Clausewitz. Willisen's criticism is rather influenced throughout by the impressions of the events which he himself had witnessed.

Although Willisen explicitly calls himself an ardent pupil of Jomini,¹ yet he shows so much originality that I must examine his theory a little more closely.

An Army is before everything else an apparatus composed of man and beast, whose first and constant nature is to require enormous supplies, the daily or periodical issue of which determines its existence. *To be in want* is thus the characteristic feature of an Army. An Army is based upon the stomach, says an old rule.² The communications of an Army to the rear serve to satisfy those wants, and with these communications, with their use for our own Army, with the interruption and capture of the enemy's lines of communications, are connected a series of maxims and rules which, according to Willisen, are eternally valid.

They together form *Strategy*, which is "*the theory of communications.*"

"But besides their wants, which must be constantly satisfied lest their existence is jeopardised, Armies have another great and constant property—that is to say, a really active and martial property—which is, that they can fight; *capability to fight* is that attribute which points to their employment on the battlefield."³ With this second property conforms the *theory of fighting or Tactics*. Willisen

¹ I. 78.² I. 32.³ I. 35.

does not explicitly ascribe to Tactics an eternal validity; he rather produces the highly remarkable sentence that "great inventions might give to the combat quite a different form."¹

On a line with those two *properties* there are at the same time two different activities (functions) of Armies. The one, resulting from the *wants* of Armies, aims at one's own preservation, and is therefore the function of parrying or defending; the other, originating from the capability to fight, aims at the annihilation of the enemy, and is, therefore, the function of advancing or, *attacking*. I call here special attention to the fact that Willisen, with an intentionally keen opposition to Clausewitz, characterises the defensive as *only* a parry, and not as a parry with counter-attack. "If it intends to attain something else it must become offensive, and thus cease to be what it is. Defensive strategy wishes to do nothing else but to secure its communications and defensive tactics to maintain its position."²

And then comes the jugglery of which I spoke a moment ago.³ Willisen starts first with the two *properties, want and capability to fight*. He connects with each in turn the *functions of preservation and annihilation*, and arrives thus on the one hand at the strategic defensive and offensive, and on the other at the tactical defensive and offensive.

He, secondly, bases his arguments on the functions of preservation and annihilation, connects with each in turn the properties *want and capability to fight*, and arrives thereby at the strategic and

¹ L. 31

² L. 45.

³ L. 40-5.

tactical defensive, and then at the offensive in both, in Strategy and in Tactics.

His third variation, again, starts from the first basis, and he combines the results of that variation into four vital phases:—

- (1) Strategic and simultaneous tactical defensive;
- (2) Strategic defensive with tactical offensive;
- (3) Strategic offensive with tactical defensive;
- (4) Strategic and simultaneous tactical offensive.

A fourth scheme then shows that, starting from the functions, one would also arrive at the same vital phases.

Lastly, a fifth variation represents the results of the four vital phases in case of victory and of defeat. This scheme I must quote here:—

VITAL PHASES.	(a) STRATEGIC DEFENSIVE AND TACTICAL DEFENSIVE.	(b) STRATEGIC DEFENSIVE AND TACTICAL OFFENSIVE.	(c) STRATEGIC OFFENSIVE AND TACTICAL DEFENSIVE.	(d) STRATEGIC OFFENSIVE AND TACTICAL OFFENSIVE.
From this results:—				
(1) For the battle won.	Complete draw.	Victory on the battlefield without result for the whole campaign or war.	Favourable general situation for a victory, which, however, will be without result because the enemy's capability to fight remains intact.	Annihilation of the enemy, conquest of his country.
(2) For the lost battle.	Own annihilation and loss of country.	Retreat, in order to resume again the tactical offensive.	Warding off the consequence by a favourable strategic position.	Temporary abandonment of what has been begun.

After a few explanatory sentences, the author continues:—

“ If there is thus a mode of procedure which, after victory on the battlefield, has no other result for me than not being pushed back, yet after a defeat completely overthrows me, then it is such an objectionable mode of procedure that I could only have been obliged to adopt it owing to some grievous blunder or in consequence of previous accidents, and that I must strive for nothing better than to get rid of it as soon as possible. If, on the other hand, there exist other modes of action, which in case of victory promise the greatest successes, and in case of defeat threaten no other harm than having to start again, then surely these are the more desirable modes, and all my efforts must be directed so as never to be ousted from such a situation, and if unfortunately I should be ousted, to try to get into it again as soon as possible. In the two outer columns of the table, one shows the most unfavourable and the other the most favourable consequences that might arise; while the two centre columns show such consequences as would paralyse each other. But a closer examination of this table will give rise to most interesting remarks, and may easily raise, in him who by intelligent study has made the results of this table his own genuine property, the sure hope of having found a guide which in all situations will indicate to him in a most comprehensive form whereto and on what objects his efforts should be directed. The value, moreover, of such a constant reminder of what is

the right and best thing to do can in our profession be as little denied as in any other. A protest ought certainly to be raised against any one who sees, in the attempts to graphically describe the most important situations on which everything depends, nothing but a mere playing with words, which, though not dangerous, is still without any value. Who is not aware that often only the right word is wanted in order to raise a whole series of happy thoughts? How much more valuable must it therefore be if we see before us, in a comprehensive form, those terms which immediately introduce us into the most important and most positive series of thoughts, and even indicate to us the way in which the most correct ideas can always be found.”

We can appreciate the sincere and honest convictions by which those sentences have been inspired; but it is uncommonly easy to point out, exactly in this case, their complete fallacy.

When Willisen in 1850 was placed at the head of the Schleswig-Holstein Army, his Government had forbidden him to assume the strategic offensive from, doubtlessly insufficient, political reasons. He at once resolved to make use of the tactical offensive directly the enemy should appear in his front. His initial dispositions for the battle of Idstedt, which was fought on July 25th, were very well conceived, and would most probably have ensured him the victory over the superior Danish Army if they had been correctly carried out. He can hardly be made personally responsible for the fact that their execution did not agree with his

intentions. His initial mistake was only that he relied too much upon the correct working of a line of beacons. The reason why the offensive did not come off was in the first instance due to a subordinate leader, who, being given an independent command, did not show energy enough, inasmuch as he allowed himself to be kept in check by an inferior hostile detachment; secondly, owing to a panic of two of his battalions at the decisive moment; lastly, on account of the improper interference of one of his General Staff officers, owing to which a successfully advancing brigade was recalled from its victorious career. The Schleswig-Holstein Army (or army corps) was, on account of all those mishaps, thrown on the defensive; and now began for its leader a peculiar trial. For the tactical defensive he had *very favourable* ground, strong and good Artillery, which hitherto had throughout obtained *superior* results, and enough Infantry, the great majority of which had also on this day given renewed proofs of greatest valour. His situation was therefore not at all desperate, though he could certainly not know that his adversary was just at this moment already considering whether he should give up the battle as lost. If Willisen had faced his adversary with obstinate resistance in his main position, and given distinct orders to that independent sub-commander, who had hitherto shown such want of necessary dash, to attack vigorously, the battle would probably have turned out a victory. Willisen, however, had for such a long time taught everybody to despise the art

of defence, that he could not have had any confidence in that form himself. "Where the great war comes to blows, it attacks; where it will not come to blows, it takes up an unassailable position or avoids attack by moving,"¹ is one of the main axioms of his book. Now, although the position near the Idstedt wood was a good one, and, with regard to fire effect upon the plain in front, even a very good one, but not *unassailable*, Willisen gave orders to break off the action and to retreat; and this order he gave at the same moment when the enemy, about 1,200 yards from the position, was forming for attack. The execution of this attack turned the Schleswig-Holstein retirement into a complete defeat, and thus the day of Idstedt became the decisive day of the whole campaign.²

Willisen undoubtedly came to grief by the *one-sidedness* of his positive doctrine, and it is highly remarkable that Theodor von Bernhardt had predicted this event quite nine years before that battle. He at the time repudiated completely and in severe terms the *Theory of Great War*, but did not wish to begrudge the Hegelians their joy so long as it was confined to their own family. "But should Willisen ever gain any influence upon the control of a German Army it would be a great misfortune. He is in our days what Phull and Massenbach were in their days, and for that reason just the right man to bring about again such catastrophes as Jena and Prenzlau."

Willisen's theory of attack, to which I now turn,

¹ I. 102.

² *Vide Supplement to Militär-Wochenblatt*, third quarter, 1851.

is worked out throughout in mathematical fashion after Bülow's and Jomini's patterns, and he explains it with the aid of numerous sketches. As the number of technical terms does not approach to anything like those of Jomini, it is not so very difficult to follow his explanations. I will, however, not investigate them further, because this kind of treatment of tactical-strategical matters has with us fortunately fallen completely into disrepute, and for that reason I cannot count upon a summary of mine being read. Only one thing I must mention—namely, that Willisen unquestionably felt very much inclined to acknowledge Bülow's proposition of the angle of 60 degrees at the vertex of the triangle of operation as being correct; but he does not venture to do it after all, as Clausewitz had, just on this point, very clearly demonstrated the uselessness of mathematical abstractions, and Willisen therefore, by a rather tortuous explanation, avoids this proposition, which he is sorry he can no longer use.¹

Willisen also holds the single turning movement, the double turning movement, and penetration (operation on the inner line) to be the three principal forms of strategic attack, and looks upon them almost in the same light as Jomini:—

(a) "The single turning movement, which, with its whole force, is directed upon one wing, may hope to crush the enemy in detail; at the worst, however, it will meet united the united forces of the enemy, in which case it would retain at least the advantage of the more favourable strategic

¹ I. 84-7.

situation—that is to say, of a situation which will enormously enhance the consequences of a victory, but reduce to a minimum those of a defeat." (Here we ought to remember the scientific requirement, that he who makes a turning movement should keep his own lines of communication perpendicularly behind himself.)

(b) "The double or concentric turning movement, on the other hand, only deceives us by its calculation that it can with one stroke get possession of all the enemy's communications and surround him on the day of battle; on the contrary, it is itself always in danger of being beaten, owing to the almost impossible harmonious co-operation of two or more widely separated portions, and owing to the unwarranted assumption that the enemy in the centre will remain completely inactive. It voluntarily puts the enemy in a position which, according to the third form or mode of procedure, that of penetration, he will strive to bring about by every means as the one most favourable for him.

(c) "Strategic penetration, finally, exposes itself, on the day of battle, to the opposite danger of being tactically surrounded, which is just as dangerous, though it unquestionably, on large areas, best shows the possibility of beating the enemy right and left by rapid movements.

"It is therefore apparent that the single strategic turning movement, because it has none of those defects which we have denounced in the other methods, and yet promises such great results, is never faulty and always sound, whereas the other two forms or modes of procedure can only be good owing to

the mistakes which the enemy has made, or owing to special circumstances, particularly disparity in numbers. If they do not succeed it is because they are faulty in themselves; if the enemy shows the slightest skill, they, in the most favourable case, only delay the decision, and thus are more effective in the defence than in the attack."¹

This last sentence shows Willisen to be in perfect agreement with Clausewitz in regard to operations on the inner line being in a special measure a suitable form for active defence; but, curiously enough, he also ascribes to the double turning movement a somewhat similar defensive character. The reason is evidently that the so-called Trachenberg plan of operation in the autumn of 1813 was really tainted with the pronounced defensive idea of evading any blow from Napoleon—a makeshift, arising from the fear of Napoleon's towering personality, which, however, had nothing to do in itself with the nature of this operation. But by attaching special importance to the possibility of evading the enemy when carrying out a twofold turning movement, Willisen concluded that both systems—viz. penetration and complete envelopment—mutually paralyse each other, or at least may do so. "The single strategic turning movement, however, must bring about the decision, because there is no reason for the one who is carrying out the turning movement not to follow him who is retreating until he stops, and because the one who retreats is bound to stop finally somewhere, unless he means to abandon his country without a battle." According to this

¹ I. 71-3.

conception, the single turning movement is the most perfect exposition of that grand fundamental principle which should be inherent in every attack: "*Strength against weakness, front against flank, superior force against inferior force, masses against the decisive point.*"¹

Willisen also lays special stress upon two tactical measures when fighting an offensive battle, which I cannot pass over; they are the *feint* (demonstration) and the *advance under cover* of ground or night.

He finally most seriously urges that only a most vigorous and continuous pursuit after victory can effect a complete solution of the problem of the attack, and that it is the *legs* of the soldier with which the General hopes to gain his greatest successes. He makes other remarks about clothing and equipment which even to-day should make us think a great deal.² He demands that we should be lavish in providing the best materials, and, amongst other things, advocates the introduction of travelling field-kitchens, as the men, whilst sparing their strength, would be fed much better and quicker, and that this would probably increase their marching power.³

Willisen's system being so exceedingly and strictly symmetrical, it naturally follows that his strategic defence is determined by the same ideas as the attack, only in a reverse sense. He looks

¹ I. 81-2, etc.

² I. 111.

³ This proposal appears to-day, when we are constantly accompanied by supply waggons, doubly remarkable. Field-kitchen waggons ought to replace them.

upon the tactical defence, we know, as a pure parry, which therefore must make use of entrenchments, even to such an extent, if possible, that to carry them by attack would seem an absolutely hopeless task. For the defensive battle as viewed by Clausewitz, where the enemy is awaited in a good but assailable position in order to assume the offensive during the last stage of the battle, Willisen finds no room in his *Theory of Great War*. We might perhaps imagine such a battle to be introduced into it in a modern sense by assuming that a portion of the Army would restrict itself to a purely passive defence in a strongly entrenched position, while the other is kept ready to the right or left rear with the object of fighting an offensive battle. Since, however, Willisen himself does not say anything about such a division of labour, and rather describes the whole action of his Army as entirely uniform—that is to say, alternately defensive and offensive—we are obliged to assume the whole Army to be posted in an entrenched and, if possible, impregnable position in all cases where he is dealing with the defence.¹

Should the enemy proceed to attack it in spite of all, the defence, after exhausting the enemy's energies, is to cease and the attack is to take its place. If, however, the adversary does not attack, but turns the position, the strategic defender will probably be obliged to retreat on account of the danger threatening his communications.

Now, as the attack is best initiated in such a way that, by a single turning movement, it obliquely

¹ I. 185-04.

strikes the defender's line of communication and takes him in his strategic flank, the retreat should be carried out if possible to one side in such a way that, when again facing about, the front will flank the assailant's general line of advance (eccentric retreat).¹ But in this case it must be noted that the defence urgently needs to be supported by ground; and therefore this, the most desirable case, presupposes geographical conditions which are not always forthcoming. An uncommonly favourable geographical support for such a procedure we find in Western Germany near the Rhine, and we know it more intimately to-day from Moltke's works.² It is to Willisen's credit that he was the first to recognise and discuss these conditions.

If a German Army, after losing the left bank of the Rhine, concentrated behind the Main near Frankfurt, it could in the most unfortunate case of still further defeats give way downstream along the right bank of the Rhine past Coblenz and Cologne. This fortified river-front is so strong that with very few troops it would form an entirely safe support for the flank. This movement downstream along the right bank of the Rhine would draw the enemy away from the direction which is most dangerous for us, and afford us, the moment we have gained a victory in a decisive battle, a further and quite an exceptionally great advantage. For we could then at once, by means of our fortified

¹ I. 131-3.

² *Tactical-Strategical Essays*, p. 272; and *Correspondence*, 1870-1, No. 4.

bridge-heads on the Rhine, cross to the left bank of that river and march by the shortest road upon the main lines of communication (lines of retreat) of the beaten enemy, who then could hardly escape a great catastrophe.

When Willisen discussed this situation, in 1840, he made a remark which showed great acumen. Military opinion at that time was still very much divided about the value of the railways, which were just coming into use, and many exceedingly foolish words about the new means of communication were then spoken by people who think that everything new is a folly. Now, just then two railway lines were talked about, one of which was to go by Magdeburg and Minden to the Lower Rhine, the other by Halle and Cassel to the Middle Rhine; but it was a question whether both could be built simultaneously. Willisen recommended the line from Magdeburg by Minden to Wesel, if only one line was to be built, as it would furnish, in case of an eccentric retreat along the Rhine, an admirable and highly efficient line of communication with the bulk of the home country. The idea was an excellent one, and hit the point where, in a military sense, the greatest importance of the new invention was to be looked for.

The defence by means of a flank position and lateral retreat forms such a main feature in Willisen's theory that I feel justified in directing attention at once to a practical example of imposing preparation for this kind of national defence, which at any rate deserves our attention in a particular degree. We know of the new

French national measures for defence generally—that they almost hermetically seal the German frontiers, and that the Paris fortifications have been increased to an extent which would make another investment well-nigh impossible; yet about the third fundamental idea which underlies these gigantic fortifications in France, about the preparations for a *retreat to the south*, hardly any hint has ever been given in German military literature, as far as I am aware.

The idea was first mentioned in 1873 by the then Major Ferron, of the French Corps of Engineers.

Ferron demanded, in his *Considérations sur le système défensif de la France*, not only an improved protection for Paris, not only the closing of the German frontier, but also a reliable frontier fortification towards Switzerland; and, lastly, a complete uncovering of the frontier towards Belgium.¹ The frontier fortifications towards Germany he wanted to see, on the whole, as an unbroken chain of forts whose fire should command the intervals, and whose reduction should only be possible with the aid of heavy Artillery; so that the enemy, at any rate, should be unable to advance on a broad front, and be obliged to wind his way gradually through a breach made in that great "Chinese" wall. Behind this barrier the French Army was to be held ready within a suitable distance in order to *attack* the enemy wherever he had succeeded in breaking through that barrier, and while he was still

¹ Only the great trading centre of Lille he wished to see protected.

engaged in deploying and forming up. If the French were then beaten, *they were not to retreat on Paris, but along the eastern frontier towards the south and south-west.* The direction of this retreat is meant to draw the enemy away either from the capital or to threaten in flank any advance of his on the capital. *The uncovering of the Belgian frontier, however, was meant to induce the Germans to attack by way of Belgium.* True, Ferron did not expressly say so; still, one can easily recognise it as his idea. The march by Belgium is not only a roundabout way for the Germans, but would in all probability make the neutral Belgians throw in their lot with France, and cause thereby a weakening of the German forces. The chief advantage for the French, however, in that case would only arise if in the north-eastern frontier-districts they gained a decisive victory behind their fortified front, which would have been turned. A strong Army would then be able to march at once into Germany by the nearest roads from the fortified eastern frontier, in order to reap on the German lines of communication the full advantage of its success.

Only a part of Ferron's proposals were at first accepted. The northern frontier was not uncovered, but on the contrary strengthened. There was no confidence in a tactically offensive plan of battle; consequently, the two great defensive battle-positions within the frontier-fortifications, the two "Trouées" of Epinal and Verdun, were formed, and behind those fortifications a further series of forts and batteries grew up on the Falaise de

Champagne, which in no way fitted in with Ferron's proposals. The secure flank protection for the retreat to the south and its direct support by various works of fortification was, however, from the outset embodied in the comprehensive plan by which France has newly organised her national defensive system.

And when Ferron gradually attained responsible positions—he was Souschef of the General Staff from 1883 to 1885, and Minister of War from 1887 to 1889—his views in regard to the whole conduct of war began also to prevail. The northern frontier is almost completely uncovered already, the Falaise fortifications of La Fère-Reims will presently cease to exist, and with the return of confidence in the efficiency of their own Army, the majority of those works which were intended as an immediate tactical support for the flanks in a defensive battle fought in a strong position probably will likewise gradually disappear. The idea of a retreat towards the south, however, will certainly remain intact after its eventual execution has once been so thoroughly considered and prepared. The retention of this idea is the more certain as it is intimately connected with the new fortifications of Paris. This transfer of the line of retreat to the south secures Paris most effectively from the danger of the enemy's main Army appearing before its walls. And the French Army can base itself the more calmly on the south, as the enemy would need to-day 400,000 men for investing Paris in the same manner as in 1870.

After this consideration of the new French



national defence, I return to Willisen with the remark that he not only was the exponent of the idea of a lateral retreat on a grand scale, but that he also was the first strategic author who in Germany advocated a system of fortification, worked out from a strictly uniform point of view, and embracing the whole country.

He starts from the fortress with a chain of detached forts, properly adapted to the ground, which were at that time quite a new feature. These small but strong, and mutually supporting works were meant, on the one hand, to prevent a bombardment of the main enceinte, and to prolong the duration of a regular siege; and, on the other, to facilitate the offensive power of the garrison or of a portion of the Army basing itself on the fortress.

It is evident that an ordinary fortress on a river (as a double bridge-head) would gain considerably greater importance when compared with former times, if it were possible to advance for attack on a broad front from the line of forts on either bank of the river. If the fortress were situated at the confluence of two streams, thus forming a threefold bridge-head, and if the river valleys themselves formed a considerable obstacle in addition, such a fortress with forts could easily afford a small Army the chance of meeting with superior numbers a strong Army in one of the three sections. For that reason Willisen looks upon the so-called Fortress-Camp or Entrenched Camp as one of great value for national defence. If we are to appreciate his opinion correctly to-day, we

must absolutely disregard the fact that the experiences of Metz, Paris, and Plewna have proved the story of a successful sortie from a fortress to be almost a mere fairy-tale. We must remember rather that, at the time when Willisen wrote, penetration of the centre was still the most revered form of battle for the assailant as well as for the original defender. And for that reason an Army in a strongly entrenched camp was then, for the moment and for some time afterwards, looked upon as a most dangerous adversary, and even a considerably superior investing Army felt it a great drawback if, owing to circumstances, it was obliged to occupy an investing line interrupted by obstacles which limited lateral communications. The situation only changed after the investing Army had gradually succeeded in entrenching itself in such a manner that any danger of even inferior numbers being brushed aside in any one of the sections was out of question.

Willisen had already, then, in his mind a fortress-camp of a size which, as a matter of fact, was never produced in any of our new constructions of the period. He proposed fortifications for Trèves which, according to his simple design, would have had a diameter equal to that of Paris in 1870, while in his enlarged plan the amalgamation of the fortifications of Trèves and Luxemburg would have formed one fortress with more than double that diameter.

Clausewitz had, some time before Willisen, considered the question whether, under certain



conditions, it might not be advisable to group around a common centre a number of fortresses several days' marches apart, and arrived at the conclusion that an Army in the middle of such a group of fortresses would indeed derive great advantages. Now Willisen demands that fortresses should be arranged in such groups as a matter of principle, in order to support the field Army as much as possible in its struggle with the enemy's invading Armies. The field Army in that case could every time evade an action, whenever it did not feel inclined to fight, by moving about *in a complete circle* within or without the group of fortresses, and at once assume the tactical offensive the very moment the enemy committed an imprudence which would give an opportunity for an advantageous stroke.

Space does not allow me to enter more fully into the proposals which Willisen suggested for the construction of fortifications in Germany on these lines.¹ They contain many good points. One thing, however, is against them—namely, that *very many* fortifications would be required. This is a very natural result; for if we bar one of the enemy's lines of operation by fortifications, he is then indirectly forced to adopt another, and in that case the desire to prevent him from taking that line also will soon become apparent. Finally, enormous fortifications would thus grow up, with great demands for garrisons and costly maintenance; and the humorous side of the question is that the demand for the construction of such enormously

¹ I. 175-82.

costly fortifications emanates from a man who always talks of the offensive, and treats the defensive with pronounced disdain. True, Willisen thinks that the fortress has fulfilled its main object whenever it has obliged the enemy to lay regular siege to it; that the duration of its resistance would be a matter of indifference; and that therefore the strength of the several places could be greatly reduced.¹ Yet, then at once the very grave objection arises, that maintenance or loss of a fortress in war has a very great moral effect, counting approximately as much as victory or defeat in a battle.

It must be specially interesting for us to know that Moltke had formed decided opinions on Willisen's ideas. Willisen's paragraph on national defence had unmistakably incited Moltke to write his essay on "Flank Positions," and in that essay he arrives at the following final conclusions:—

"If the defender is standing in a strong flank position near one of the enemy's lines of operation, the assailant will choose the other. Even if we really wished to prepare several such positions, we could not occupy more than one, and just in that position we would probably not be attacked; and therein lies the reason why entrenched camps are so rarely used.

"A group of closely connected fortresses would undoubtedly form the most excellent entrenched camp. But such a group would, in most cases, only cause the enemy's advance to take another direction. The employment of such extensive

¹ I. 162-3.

means seems only justified where the enemy, by gaining his object of operation, would at the same time gain the object of the war—that is to say, the capital of the country as a rule. At that point there is no longer any defence possible by strategically threatening the enemy's flank, nor has the enemy another line of operation open to him. At that point we are sure that the enemy will attack us in any case, and that our fortifications will at any rate tell in our favour. For the defence of the entrenched camp around the capital there will, of course, be also always an Army available, if resistance at all is any longer possible.

“ Nowhere could we count upon the effect of an entrenched position with greater certainty than near the capital of a country, and yet it does not follow at all from this that the capital must be fortified. The immense cost and the great drawbacks of such an enterprise will not be necessary if we can reasonably hope to grip the enemy at the frontier, and bring about the decision there.

“ And with that object I consider *Lines of Fortresses* as more advantageous than *Groups of Fortresses*, if the former at the same time command the passages over the great rivers.”¹

¹ *Tactical-Strategical Essays*, p. 206.

CHAPTER VII

TECHNICS OF THE NINETEENTH CENTURY

THERE are four new phenomena which, since the middle of the nineteenth century, are exercising a decisive influence upon the conduct of great war: (1) an improved network of roads; (2) railways; (3) electrical telegraphy; and (4) the long-range and rapid-firing rifles and guns. It goes without saying that every one of these new factors came into prominence only slowly and gradually, and of the last one we must even say that its influence is not yet finally established, and that, as far as the weapons are concerned, we are even at the present moment still in a state of development; nevertheless, it is admissible to mark the end of the fifties of the last century as about the time when all these new phenomena began to take effect, and that in consequence of this effect the traditional Napoleonic strategy began to lose its recognised dominating position.

(1) The improved network of roads, the result of steadily growing civilisation and increasing prosperity, now offers to the movements of Armies everywhere a whole series of useful roads, where formerly one or two were alone available. Not only between the larger towns and in the main

directions of traditional commerce are there well-kept, metalled roads, which with easy gradients cross hills and mountains; but also from village to village do we find now improved communications, and more and more do the unreliable bridges disappear, and also those difficult rises, the ascent of which often required twice or three times the number of horses for each vehicle.

As the roads developed and improved, the march-technics, which Napoleon employed during decisive operations, and which we have already discussed, gradually disappeared. When there are useful and ample roads, nobody would think of ordering the bulk of the Army—Infantry and Cavalry—off the roads, and telling them to march for miles across country in quarter-column of sections, a measure which is bound always to entail great loss. We now continue the march on the roads in column of route with all arms until close to the battlefield. In this way the individual divisions, with their three arms properly combined and distributed, always remain under the immediate command of their leaders, and one of those reasons ceases to exist which, with Napoleon's mode of procedure, made a special deployment for battle absolutely necessary. While Jomini calculated time and space for large bodies of troops (of course, only when concentrating for decisive battle) exclusively by the time it took the Artillery to get clear of the camp, and thus allowed for the deployment of an army corps of 80,000 men only two hours, we are now obliged to base our estimates for marching

and deploying on quite different calculations. During the staff rides of the Prussian General Staff, the staff duties in the field (which Jomini calls *Logistics*) are constantly tested, and their principles revised and kept up to date. The length of columns and the time for the deployment of large units, which are now much more richly provided with Artillery, are carefully determined; and the result of all those calculations is, that the army corps of, roughly, 30,000 men is found to be the natural strategic unit, as it is that body of troops which in one column of route would occupy the normal length of a day's march. Thirty thousand men occupy about fourteen miles, and fourteen miles is about the usual day's performance of one army corps, for which the average endurance of the heavily packed pedestrian forms the standard. Such an army corps, therefore, can start every morning from a position of assembly, and be again concentrated in the afternoon in such a position fourteen miles ahead; it can at the same time also keep in touch with its baggage, its columns and trains, which bring up ammunition and supplies, and which at the present day are composed of *at least* four to five times more vehicles than at the beginning of the last century, owing to the increased demand for ammunition and the greater weight of the Artillery projectiles, as well as owing to the more ample provisions for food and for the care of sick and wounded.

If greater exertions are urgently needed, we could start the corps earlier, so as to be assembled at the

required point at noon. The number of trains and columns which would otherwise immediately follow could be limited to what is absolutely necessary; and, instead of the bulk of the impedimenta of this first corps, a second army corps could then use the same road in the afternoon. This is the exception in our days, and compared with the normal movements of an Army is on a par with an example in Jomini's *Logistics* which closely investigates into the movement of $2 \times 60,000$ or 120,000 men on *one* day and on *one* road, or rather, *alongside one* road.¹

From this it becomes apparent that Clausewitz's considerations, with regard to the most practical mode of subdividing an Army, which we have already touched upon, must meet at the present time with serious objections, and nothing is changed by the fact that even Moltke after 1866 temporarily interested himself for the organisation of the mobilised military forces into Armies and divisions and for the abandonment of the army corps system.² The organisation into divisions is in no way sufficient for large Armies, for the portion which is moving on one road should also be commanded by one man; and the army corps having become in peace-time one homogeneous mass, and so to say an individual, one would even in those very exceptional cases not like to forego the advantages arising therefrom, where the army

¹ *Précis*, chap. xxviii. (II. 114). Napoleon in his marginal note to the thirteenth concluding remarks of Rogiat is also of the same opinion as Jomini. *Vide* also Lewal about this, *Stratégie de marche*, p. 98.

² *Tactical-Strategical Essays*, p. 155.

corps command may, from the point of view of the actual operations, prove perhaps to be superfluous.

Of course, the army corps as a unit and at its present strength is a strategic necessity; opinions, however, may differ considerably in regard to its organisation. If our army corps were composed of three divisions, each consisting of three regiments, it would meet the requirements of command much better, and would be far more preferable than the present system of dividing each corps into two divisions.

Although it will be a slight digression from my subject, yet I must follow up this idea a little further, since just now questions regarding Army organisation are frequently discussed.

The organisation of the army corps into three smaller Infantry divisions could be carried out almost without any increase of the Army and without much additional expenditure, as the number of Infantry regiments at the present moment is already more than sufficient for that purpose.

To each Infantry division of eight or nine battalions should belong in war one Field Artillery regiment of six batteries, while the fourth Field Artillery regiment of each army corps could form the corps artillery, at the disposal of the General commanding the army corps.

Each Infantry division should be furnished with a squadron of orderlies (Mounted Rifles) and a company of cyclists. Cyclists can relieve the Cavalry of a great deal of their reconnoitring.



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scouting, and orderly-duties, and render in those duties excellent service. The occasions on which impassable roads would completely paralyse the cyclists will not be more frequent than those where slippery roads prevent the Cavalry from carrying out their duties. Troopers and cyclists must, as a rule, apportion among themselves their common task, according to the nature of the country.

Finally, each division should get its necessary share of special troops, such as a field company of Engineers, a bearer company, etc.

During peace the army corps would be organised as follows: three Infantry divisions, each consisting of an Infantry brigade of three regiments and a Landwehr district of about four to six Landwehr depôts; there would also be attached to two of the divisions of the army corps a Field Artillery brigade each.¹ The fourth main part of an army corps would consist of a Cavalry division in two brigades of two regiments each. Rifles, Engineers, and Garrison Artillery could form part of an army corps as hitherto in peace time, but I think it is desirable to connect the Army Service Corps more closely with the Field Artillery, because I consider it a great advantage to have the ammunition and supply columns in war more intimately connected with it.

In case of war the following changes in the commands, which cannot be gathered from the foregoing, will have to be made: the Commanders of the Infantry brigades will assume command of

¹ In the German Army an Artillery brigade consists as a rule of two Artillery regiments, each of six batteries.—TRANSLATOR.

the *reserve* divisions; the Inspectors of Landwehr, who are all Major-Generals on the active list, will take over the superior commands of all Landwehr troops. The senior Commander of the Field Artillery brigade will become General Officer Commanding the Artillery of the army corps; the junior Artillery Brigadier will assume the command of the ammunition and supply columns—for a permanent and strong central authority behind the army corps is an absolute and urgent necessity, and cannot be neglected without serious disadvantages, even during an uninterrupted forward movement.

The Cavalry division, according to the war establishments, forms part of the army corps, yet Army headquarters have not only generally and naturally the right, but also an emphatic right, always to dispose of it by immediate orders whenever it appears desirable. If the Commander-in-Chief wishes to unite several Cavalry divisions for a common object, a General Officer commanding the Cavalry attached to headquarters would assume their command until the desired object is attained. This is the mode of employing masses of Cavalry as it was proposed by Moltke in his memorial of July 25th, 1886 (*Tactical-Strategical Essays*, p. 124).

(2) Railways have above all completely changed the term "base." Railways carry in a few days men, horses, vehicles, and material of all kinds from the remotest districts to any desired point of our country, and nobody would any longer think of accumulating enormous supplies of all kind at



certain fortified points on his own frontier with the object of basing himself on those points. One does not base oneself any more on a distinct district which is specially prepared for that object, but upon the whole country, which, owing to the railways, has become one single magazine with separate store-rooms.

Of course, this difference, when compared with former times, is the more felt when we are operating within our own country or quite close to its frontiers. As soon as we penetrate deeper into the enemy's country the undoubted advantage of modern conditions is immediately accompanied by a most distinct disadvantage—the communication in the enemy's country, by means of a railway which is abandoned and perhaps destroyed by the enemy, and which we can only repair with the greatest difficulty; that railway line by means of which we, with the aid of our own military railway staff, with engines and waggons from our home country, effect our communications to the rear, must really be called an exceedingly sensitive line of communication.

Now, the demands upon the railways as lines of communication have considerably increased in the course of the nineteenth century, and in 1870-1 numbers had to be dealt with which in former times would have been looked upon as inconceivable. Our German Field Armies crossed the frontier with, roughly, 520,000 men, being gradually increased to about 600,000 men by the subsequent transport of complete units. In order to maintain this number, 2,200 officers, 270,000 men, and

22,000 horses were by degrees brought up by rail to replace casualties.¹ In the course of time 240,000 wounded and sick of friend and foe² were railed to Germany, and also by far the greater portion of the 384,000 prisoners of war, which we had to house in Germany, were entrained on French soil or close to the frontier.³

These are enormous numbers to deal with in rear of an Army, and compared with that traffic, the transport of 30,000,000 cartridges for rifles and 362,000 rounds of Field Artillery ammunition is a comparatively insignificant performance.⁴

On the other hand, the conveyance of the powerful siege-park, of the numerous heavy guns, and of the enormous loads of necessary ammunition, made heavy demands upon the railways which were worked by the military; for it is a fact that, during the siege of Strassburg alone, we spent three times the amount of ammunition, taken weight for weight, which we fired altogether in all the decisive battles and actions during the whole war.⁵

If, in view of these statistics about the use of our railway communications, we consider the fact that even a single man would be able to derail a train, and that a bold raiding party might easily carry out a demolition which would stop all traffic for weeks, we can see how very necessary it is constantly to protect our latter-day communications

¹ *Official Account of the General Staff*, vol. v. appendix No. 102.

² Vol. v. 150B.

³ Vol. v. 1540 (this number includes 12,000 officers).

⁴ Vol. v. 1400-1, note.

⁵ V. 1470.

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in an enemy's country, and how acutely, even in our days, Armies may suffer when the enemy is seriously threatening its communications. We must, therefore, strictly discriminate between the conditions of the strategic defensive and the strategic offensive.

Railways, affording great freedom of movement, facilitate the defence within our own country still more than formerly. It does not matter in the least as regards the general traffic on the railways, or the supply of the Army with drafts of men and horses, ammunition, and provisions, or evacuation of wounded and prisoners, whether railways run straight, or in a more or less roundabout way, and only that portion of the country is lost for our purposes which the enemy has already occupied. The complete control by the military of all railways is so amply secured, and the military railway authorities are so mobile, that any desired change of a line of communication can be carried out with the greatest ease and rapidity by the simple issue of a brief order. The defence on our own ground has the further special advantage that efficient railway communication can throughout be maintained right up to the positions of our own Army. We can thus at once transfer the supplies of all kinds from the railways straight to the supply columns and parks of an army corps, or even issue them to the troops directly; and not only do the improvised waggon-parks, which would be otherwise indispensable, become unnecessary, but we will often be in a position to leave part of the trains at a greater distance behind the troops.

It is of no small importance that retrograde movements in our own country will in this way be greatly facilitated.

On the other hand, the strategic attack in the enemy's country must, of course, never with any degree of certainty count upon the railway communication keeping equal pace with the progress of the attack. The enemy will either have blocked the railways by fortifications, or probably have destroyed them, and the construction of provisional lines is a difficult and wearisome process. Nevertheless, within a comparatively very short time we can, by means of narrow-gauge lines on the high roads, establish a line of communication which may prove very efficient for the transport of all kinds of material for the Army for some distance. If railway communication has actually been established in the enemy's country right up to the Field Army, headquarters will have to bear in mind that such a line cannot be easily changed; and those celebrated *changes of the line of communication* (line of operation) which Napoleon himself, on some occasion, declared to be the ablest manœuvre in the art of war,¹ could scarcely be carried out any more. In future we will, therefore, more frequently see cases arise again where occasionally whole corps must be despatched towards one side in order to protect the line of communication of an Army, and a case may again arise where an Army is mainly fighting with the object only of

¹ Vide tenth remark of Napoleon to the Seven Years' War, in which he—without any adequate reason, it is true—mentions the battle of Leuthen as an example of such ability.

preserving its *line of communication*, though, according to the whole situation, it need not have the slightest apprehension about the safety of its line of retreat. Let us imagine that about the middle of October, 1870, before the fall of Metz, a considerable French Army is advancing from the south in the general direction on Chalons-sur-Marne; that would be such an example. This movement of the enemy would have threatened the indispensable line of communication of our main Army before Paris, and such a threat would have been the more dangerous as the future bombardment and siege of Paris depended entirely on the proper working of the so-recently-reopened railway line. We would unquestionably have rather abandoned the further investment of Paris than permitted the destruction of our line of communication. But the question of retreat would in that case have played no rôle whatever. On the contrary, our headquarters would surely have felt it as a kind of compensation to get the opportunity of fighting on a reversed front and cutting the troublesome adversary's line of retreat towards the interior of France.

I have dealt with the railways firstly as to their importance as lines of communication, because in this respect their influence on the conduct of war is felt more lastingly. But they exercise a much more striking influence upon the strategic concentration of the Armies for war, and therefore also upon the plan of war. The long period of preparation for war, which was almost always necessary, is for the great continental States of Europe now

more or less a myth. In every country the principle prevails to delay until the very last moment the calling out of the reserves, when there can be no longer any doubt about the resolve for war, but then to act with the greatest promptitude. Not only the actual mobilisation, but also the concentration of the Army, is worked out with the utmost care and to the minutest details, and it is very important that these arrangements should be strictly adhered to. Everything is carefully balanced so as to ensure the most rapid concentration of the whole Army for immediate operations. Sometimes there are good reasons for transporting a certain portion of the Army to a certain place, but it is sent to another because it would there be available for action some days earlier. The main outlines for the future plan of war, the preparations for entraining the troops, and the carrying capacities of the railways, mutually determine the final plan.

One especially characteristic feature of the ultimate plan can generally be easily recognised: the broader the front upon which concentration can be carried out, the more rapidly the concentration is finished; the narrower the front upon which it must be effected, the longer it will take. In other words, concentration by means of railway needs a broad front.

I have now still to touch upon a third use of railways—namely, their immediate employment in strategical operations. The Franco-Sardinian flank march in 1859 is, most probably, one of the first examples of this kind, when the Infantry of a whole army corps was using the railway and

travelling along the enemy's front; it did so, it is true, protected by a large river, yet at a remarkably short distance from the enemy's outposts. The Infantry was saved fatigue, and moreover left the roads free for other urgent needs; no time, however, was saved by the railway journey. It can be easily understood that the real use of railways can only be fully realised when it is a question of transporting large masses of troops with their horses and waggons for a long distance; an army corps will arrive sooner at its destination by route march, if only a short distance has to be covered. But let us imagine the case in which Germany is obliged to fight in two different directions; then her excellent railway system will unquestionably render signal service in all operations. Large bodies of troops could be moved with great rapidity, as the situation required, from one theatre of war to the other, and thus the game on the inner line be renewed in a loftier and grander style than formerly.

As I have previously spoken of the careful and most minute preparations for strategic concentration by rail, the uninitiated may think that in such a case a somewhat lengthy time for preparation would naturally be also required, and thus be a kind of drawback. This, however, is not the case. The military time-tables are so lucidly and cleverly arranged that simple orders, excluding every possibility of misunderstanding, and in the style of a telegram, are perfectly sufficient for preparation as well as for the execution of the transport of whole army corps, and the military railway staff as well

as the railway companies are, owing to the annually recurring mobilisation schemes, so thoroughly familiar with the essential features of this matter, that we may confidently count upon the self-reliance of the executive staff also in such cases.

(3) The electric telegraph I need only mention very briefly; but its importance is enormous, for *the telegraph has completely removed all danger of separation*. It has already been shown in another chapter that Napoleon absolutely repudiated the idea of "operating from widely different directions without intercommunication,"¹ because it would be impossible for different columns to act in concert. He expressed this opinion on repeated occasions, and left no doubt about the importance which he attached to it. It is the starting-point for his whole strategy of operating with masses, which keeps the main forces as a matter of principle always as closely concentrated as the roads and billeting will permit, and which always has for its object the capability of striking with united forces at fractions of the enemy in succession.

The former and actually existing danger of failure in the preconcerted action of widely separated portions of the Army is now almost completely removed by the electric telegraph. However much the enemy may have succeeded in placing himself between our Armies, or portions of our Armies, in such a manner that no trooper can get from one to the other, we can still amply communicate with each other on an arc of a hundred or two hundred or four hundred miles.

¹ *Ide* p. 37.

The field telegraph can everywhere be laid as rapidly as the troops are marching, and headquarters will know every evening how matters stand with the various Armies, and issue its orders to them accordingly. But some of my readers will perhaps object, and say, you have told us before, when discussing the plan of operation of the Allies in the autumn of 1813, that such a daily issue of instructions and orders was not at all the proper thing to do, and that determining on a general plan with complete freedom of action for its execution did excellent service at that time, and that headquarters should confine itself to giving general directions. This objection is not unjustified. When the electric telegraph was first introduced as a means for leading troops, much anxiety was felt in many places that this might be the beginning of a new era for an aulic council of war, and even Moltke himself on one occasion expressed pity for a General who, by a "wire in rear," sees his freedom of action jeopardised.¹ It was of course necessary to learn to avoid this danger, and to understand how to turn the constant telegraphic intercourse between the various commanders of the different Armies to the best account without impairing their freedom of action. And in this respect Moltke has founded a school which bears the stamp of his own noble character and truly singular high-mindedness. The German system of issuing orders, according to Moltke's standard, starts from the assumption

¹ Vide the work on the campaign of 1850, p. 8, published by the Prussian General Staff.

that the subordinate understands his business thoroughly; the orders assist him by giving him all the news which can be given; and the orders are careful not to prescribe anything that he himself is able to arrange. When studying Napoleonic operation orders we have to admire over and over again the all-embracing and active mind of the Emperor, who thought of everything and provided for everything; but after a short time we also arrive at the conclusion *that leaders could never be trained in such a school*. The helplessness and awkwardness of his Marshals, when confronted by real problems in leadership, are most assuredly not an accidental misfortune; they are the consequence of that inconsiderate, and even tyrannical, treatment preferred by the Emperor when dealing with his Marshals, a consequence of that constant interference by far too categorical orders, and of that cruelty with which he punished every disregard of his commands. In that way one does not bring up reliable assistants for difficult work and great emergencies; and just because he had no such assistants the Emperor had all those misfortunes in the gigantic struggles which led to his overthrow. Any one who is studying Napoleon's operation orders may easily be misled if he does not clearly see this fact.

(4) Everybody knows that *long-range and rapid-firing arms* were bound to change Tactics completely. I must, however, say a few words about the extent of that change.

Our Infantry weapons now, at the close of the nineteenth century, carry about ten times farther

than those of Napoleon's time; they can fire at least three times more aimed shots than formerly in the same time, and allow the marksmen to load whilst lying down, and to make use of cover, therefore, which they formerly could not use.

If an Infantry skirmishing line advances purely frontally over an open plain against a defender lying down under cover, it moves forward by alternate rushes, in order to be able to fire also lying down, and to shorten as much as possible, by a quick run, the forward movement, during which an upright attitude cannot be avoided. The assailant during that time *sees* always only a small target, and himself *presents* at every moment, however often he may lie down, the greatest possible target. He cannot possibly take proper aim when he is running rapidly, while the defender's steadiness in delivering his fire constantly increases, because he clearly sees the losses which he inflicts. Lastly, the assailant can fire only during part of the pauses, only after the rapid pulsation of the heart, caused by the rush, has somewhat abated; he therefore can fire but a fraction of the rounds which the defender can direct against him with a well-aimed fire. According to the results of musketry practice the assailant during this procedure is exposed to at least twenty times the amount of loss which he himself could inflict upon his covered adversary. In other words, the old traditional assault by Infantry over an open plain is to-day impossible, however much it may be modernised in appearance. The modern field-guns have about five times longer range than the

guns at the beginning of the nineteenth century; they surpass them considerably in rapidity of fire,¹ and are in themselves the best range-finders; they hit the target with a precision which was formerly quite unknown. Their chief projectile, the shrapnel, is a projectile specially constructed for use against Infantry columns; that projectile has caused the gradual but complete disappearance of the column from any part of the battlefield that may be visible to the enemy, but it may also become dangerous to an invisible column the moment the enemy becomes aware of its position.

At the beginning of the nineteenth century, on the plain of Wagram, we see the densely massed phalanx of more than fifty battalions trying to produce an effect by the sheer pressure of its weight, and, being at first obliged to fall back when confronted by the enveloping fire of the defence, we see it establish the superiority of the bayonet over the firearm after a renewed advance in spite of the initial reverse; and at the close of the century, on the plains of South Africa, we see the long lines of skirmishers, notwithstanding their great superiority, vainly attempt to close with the very thin line of the enemy's scattered marksmen: *such is the contrast between the fire-effect of then and now.* The influence of the most recent improvements in small-arms is at any rate much greater than when firearms were first invented. We cannot say the same of the guns, but

¹ I omit here particulars, because just at this moment expecting another step in advance as regards this rapidity.

progress in modern times must still be called tremendous.

Owing to these improvements in firearms the purely frontal attack, or tactical penetration, is almost struck out from the military vocabulary. Only when just in the centre of the enemy's line of battle the country affords special advantages to the attack, or when it is clearly observed that the enemy is committing some grievous blunders, will we feel tempted to direct our efforts upon the centre of the adversary. Such cases may be conceived, in particular, when fighting is going on for several days along extensive lines, and when the assailant has determined to feel and work his way closer and ever closer to the enemy's position with the shovel in his hand, as in siege operations.

But, on the whole, the attack must acknowledge that it is necessary to envelop the enemy in order to subdue effectively the enormously increased fire-effect of the defence.

In like manner, as penetration with cold steel was the culminating point of all tactics at the beginning of the century, so has fire-effect from two sides become the culminating point of all tactics at the end of the century.

It is a useless effort to try and steer a middle course in the face of such changes. The change is so enormous that there can be no longer any question of cautiously feeling one's way for alterations; we must break with everything that is no longer in harmony with the spirit of the times.

And now, what effect have all the technics of the nineteenth century upon strategy?

The broad front on which concentration by rail must be effected, and which as a rule is absolutely unavoidable, obliges us to divide the whole Army into several independent Armies, although the actual number of army corps could still be guided by one Commander-in-Chief.

When the Armies are moving, the natural endeavour is to assign to each army corps a separate road, and there must be special reasons if we depart from that rule.

The electric telegraph allows complete harmonious co-operation even on an extensive front.

A battle, as a rule, is best planned if our Armies can envelop the enemy by marching upon him from two different directions. The net result of all this is:—

Firstly, Jomini's *carre stratégique*, and the quadrilateral, or cross shape, in which Clausewitz intended to move the Army, have lost their former importance.

Secondly, the advance of different Armies on concentric (exterior) lines of operation is no longer exposed to the former dangers.

Lastly, operation on the inner line has become highly dangerous, because it so easily gives the enemy an opportunity of enveloping us, and thus gives full scope to the highly perfected modern fire-arms. It is, at any rate, no longer the means, as formerly, of helping the weaker to gain a victory; successfully, it can really be applied only if it is favoured by special circumstances.

CHAPTER VIII

MOLTKE AS CONTRASTED WITH NAPOLEON

THE question whether there is a contrast between Napoleon and Moltke has lately been repeatedly ventilated, and not without some bitterness. In order to avoid the latter, which in scientific discussions is always disagreeable, I will at once clearly state what I mean by the heading of this chapter. There is to my mind a very considerable difference between the two men, but of course only a relative one. If we compare the strategy of both with that of Frederic the Great, we recognise at once the contrast between the uniformity of strategy in the nineteenth century and of that in the eighteenth century. But if we bring forward Alexander, Hannibal, and Caesar, then the great captains of modern times must appear to us all alike in comparison with the former, because we are immediately struck by the way they all differ from the great leaders of ancient times. Raising our standpoint once more, we finally arrive at a point where we recognise an undoubted similarity in a series of traits common to the heroes of all ages.

I will also say at once that Moltke himself never spoke a word about the contrast which I intend

to develop here. This, in the first instance, is due to his great modesty, which prevented him from emphasising his departure from Napoleon's model and formally announcing his repudiation of certain sentences in Clausewitz's theory of war he otherwise valued so highly. He felt the less inclined to take this step as Clausewitz had occasionally made some remarks, which almost go beyond the scope of what he had laid down for himself, and which sound like prophecies of a future time.

But there is an additional reason. We shall see later on that Moltke precisely and distinctly accentuated the principles which reveal his departure from traditional strategy. But as he did so in a royal decree—Instructions for Generals—where terseness is most essential, and which, being confidential, had to be kept secret, he had of course no occasion for discussing the novelty of his doctrines somewhat in a manner unavoidable in an ordinary manual.

However, it is our duty to see perfectly clearly what his views were on matters as he found them, and how far the experienced artist in practical strategy struck new paths for the advance of this science.

Moltke's *Military Correspondence* is a matchless source for answering these questions, and especially instructive are his numerous memorials, in which he examined over and over again every possible question of war and dealt with it in every possible way. For Moltke was an uncommonly industrious worker, and with every fresh development

political or military situation he at once took up the pen in order to be perfectly prepared at any moment and be able to give responsible advice.

As we did not go to war with France in 1859, I shall discuss Moltke's preliminary studies concerning that war in connection with his preparations for the war of 1870-1.

The war with Denmark in 1864 does not yield much for our purpose, because the essential point of the question which concerns us remains unanswered—namely, the handling of the enormous Armies of modern times—and because that question could not arise on so very limited a theatre of war. Nevertheless, it is not without significance that Moltke's plan of campaign¹ had a *trifold* envelopment of the enemy in view, a form of procedure therefore which Napoleon in his plans of operations for a whole campaign had *never* made use of, and which he always systematically repudiated.

We are therefore next concerned with the *War against Austria*. The first thing which will interest us is to know what position Moltke took up in regard to the well-known idea of Jomini, that the Prussian offensive should start from Silesia, be directed on Vienna, and gain its object by a march of ten to twelve days' duration.

Moltke has repeatedly examined this idea,² and once stated that such an operation with about six or seven army corps, while one corps remained behind for the protection of Berlin and one to two

¹ Moltke's *Military Correspondence*, 1864, No. 2, Memorial of 1862.

² *Military Correspondence*, 1866, Nos. 1 and 6, Memorials of 1860 and 1865-6.

corps for the protection of the Rhenish Provinces, would be the most correct thing to do. This would have been an operation quite in the style of Napoleon, with the massed forces on *one* line of operation, and if we take into consideration the distribution of the Austrian military forces over the whole empire, it would have become an operation on the inner line.

But such a plan of war had to assume that Prussia would make her preparations in all secrecy; that, after the first trainload of troops had started, a clever diplomacy would employ every means of deceiving and delaying the enemy, while at the same time the concentration of the Army would be continued with the utmost despatch; and, finally, that Prussia would begin hostilities the very moment the last body of troops with the absolutely necessary number of ammunition-columns and supply-trains had arrived. Moltke, however, knew exactly that his august master would not entertain such an idea. King William wanted to wage war against his former ally only if Austria's bearing forced him into a war, and for that reason Moltke was obliged to abandon entirely such an offensive plan of campaign.

The next step was then to consider carefully how Austria might be able to profit by the initiative thus left to her. Owing to Bohemia's geographical situation in regard to the Prussian capital, it was to be expected that the enemy would concentrate in considerable strength in the northern part of that province with the object of fighting the decisive battle on the shortest road. From the

interior of Austria, it is true, only one single railway line led into Bohemia; but owing to her alliance with Bavaria, another line became available. For troops which could not be transported on either of those lines, Olmütz was a natural point of concentration, because a third line led to that place from Hungary, which, however, on the River March amalgamated for some distance with the first-mentioned line from Vienna to Prague, and because also the Galician railway terminated within its neighbourhood. Since Moltke had clearly recognised the high importance of railways for the concentration of Armies, he naturally assumed that his adversary would also shape his concentration in a manner which would turn the available railways to the best possible account, and for that reason he counted from the outset on having always to deal with two hostile Armies—viz. one in Bohemia, the other in Moravia.

The Prussian military forces to meet them had therefore to be disposed so as not only to cover Berlin, but also to secure the province of Silesia against an hostile invasion. Prussia could mobilise much more rapidly than Austria, and if the bulk of the troops in Silesia and Brandenburg were to go by road, and if five army corps could simultaneously be transported on the five available railway lines, a rapid concentration of the Army was perfectly ensured. But then of course this necessarily entailed concentration on a very broad front, an organisation of the Army into several independent Armies, and their eventual independent action.

Moltke was convinced that Prussia could afford to delay the order of mobilisation without any danger until the extent of the Austrian preparations would make their hostile intentions palpable to everybody. Only actual concentration of troops could we not allow to the adversary without action on our part. But as soon as mobilisation was once declared, Moltke thought that there should be an end of all hesitation as to "aggression," for otherwise the situation would become highly critical, and therefore in repeated memorials addressed to his august master he showed that from that moment the military point of view must prevail.¹

With the twenty-fifth day of mobilisation the war ought actually to begin. In that case we could count upon being numerically superior for about two weeks, and look upon such superiority as a guarantee for the attainment of important successes. If, on the other hand, the enemy were allowed to have a considerable start in his preparations for war, if he were permitted to form effective Armies before our mobilisation was declared, or if we hesitated, from political reasons, to employ the mobilised Armies, then of course we should lose the advantage of our better organisation; and if we left the initiative to the enemy, we could not avoid getting into difficult situations.

Moltke had thoroughly considered the final consequences of every possible situation. In more than twenty memorials and smaller reviews he

¹ *Military Correspondence*, 1806, pp. 129, 133, and 178 (on April 13th, April 27th, and May 25th).



minutely accounts for every fluctuation, for every change in the political and military situation during the months of March, April, and May, 1866.

He first occupied himself with the possibility of the enemy trying to disturb the Prussian concentration with his first available troops. If at an early date an Austrian-Saxon Army should try to advance by the nearest road, along the right bank of the Elbe, on Berlin, he meant to oppose it in front by a Prussian Army of three corps south of Berlin, while another Army of four corps would fall upon the enemy's flank from Torgau,¹ and one or two other army corps would cover Silesia. In another project the Army covering Berlin is supposed to consist of four army corps, while only two such corps act upon the enemy's flank from the direction of the Elbe.² But there is also the alternative that the actual flank attack is not to be made from the west, but from the east, from the neighbourhood of Görlitz, by an Army of two corps, while simultaneously two other corps would invade Bohemia from Silesia.³

The enemy's offensive on Berlin might, however, just as well be inaugurated by an advance on the left bank of the Elbe. In that case one army corps resting on the fortresses of Wittenberg and Torgau would have to oppose the passage of the Elbe in front, while an Army of three corps is advancing from the Mulde on the enemy's flank.

¹ *Military Correspondence*, 1866, No. 16.

² No. 38, I. A.

³ No. 49.

The main body of the Prussian Army, however, would advance from Lusatia and Silesia into Bohemia, and drive everything before it that might have been left behind by the enemy with the object of guarding his line of communication, and then be prepared to fight the enemy, who would be returning from Berlin, in a battle on a reversed front.¹

If the enemy intended to turn against the centre of the Prussian front, which would be forming near Görlitz, he could undoubtedly force it back; it might even become necessary to detrain the troops which are sent to Görlitz farther back at Sorau and Guben, and even as far back as Frankfort-on-the-Oder, should the enemy persist in his advance. But when the Görlitz Army has been brought up to its full strength and is able to assume the offensive, a Prussian Army composed of four corps would at the same time be ready about Dresden, far in rear of the Austrians, to advance into Bohemia, and it may be the case that the Silesian Army has by then already penetrated into that country.²

Lastly, if the Austrian offensive were directed against Silesia from Bohemia as well as from Austrian Silesia, then Moltke meant to reserve his decision according to the circumstances of the special case, whether the Prussian main forces around Görlitz and on the Elbe were to advance to the left into Silesia, with the object of fighting the decisive battle united with the Silesian Army,

¹ No. 38, II. A c.

² No. 38, II. A b.

or whether it would not be better to advance at once into Bohemia with these main forces, and thus cause the Austrian offensive Army to retrace its steps.¹ But he also weighed in his mind the case that the Silesian Army might be obliged to retreat past Breslau behind the Oder, and that only the centre Army would be hurrying to its assistance from Görlitz by Liegnitz, while the Army of the right wing would continue its operations into Bohemia.

If we try to summarise in a few words the fundamental idea of all those designs, we may say the following: The Prussian strategic concentration is indeed carried out on an unusually wide front, and according to our traditional views would tempt the enemy very much to fall upon one end or the centre of this somewhat cordon-like disposition, and to beat each part in detail. But nowadays we have the electric telegraph, and our subordinate leaders are accustomed to act on their own initiative. We shall therefore doubtless succeed in obtaining harmonious co-operation between the widely separated Armies, and then the enemy may beware!

From Moltke's labours it is at any rate unmistakably clear that it is just an early offensive on the part of the enemy which he is the least afraid of.² He is far from looking upon the tactical defence as a doubtful form of action, and he just as little belongs to those people who look upon a retreat as dishonourable or scandalous. In

¹ No. 6, paragraph 1.

² *Vide* specially No. 30 (pp. 111-4) and No. 41 (p. 122).

like manner as Napoleon demanded from every body of troops and from every leader in a rear-guard action the ability of disputing the enemy every inch of ground, so also Moltke considered it quite a matter of course for every portion of an Army to fight, according to circumstances, just as well in defence and retreat as in the attack, and considered it simply an absolute duty of every superior leader to order even a retreat if, according to circumstances, a decisive action could be brought about more favourably in rear.

We now come to the second stage of the question—namely, what was to be done if the enemy should abandon an early offensive, and await the attack in Northern Bohemia, and at most perhaps facilitate the retreat of the Saxons by a short advance with a fraction of the Army.

Moltke assumed in that case a general advance of the three Prussian Armies on the twenty-fifth day of mobilisation. If an Austrian corps should have advanced in support of the Saxons, an attempt would have to be made by the Prussian Army of the right wing to push this hostile Army beyond the left bank of the Moldau, and drive it away in the direction of Linz. The Görlitz Army would then unite with the Silesian Army in the neighbourhood of Königgrätz, and look for the Austrian Army in Eastern Bohemia. That Army would scarcely be strong enough to accept a decisive battle, and would therefore retreat on Olmütz, thus leaving open the road to Vienna. Moltke describes the situation which would be thus created for the Prussians as one on the

inner line, and such undoubtedly it is. We must only bear in mind that it has not arisen in the manner which we are usually accustomed to connect with the idea of an operation on the inner line—that is to say, not in the manner where one single concentrated Army temporarily splits up in order to deal alternate blows to the right and left, or where it shifts its centre of gravity.¹

If the Saxons would, without delay, retreat into Bohemia, Moltke's plans provided for the contingency of a decisive battle not only in the neighbourhood of Jung-Bunzlau or Prague—and in the latter case, if possible, with a front towards the west—but also for a battle in the neighbourhood of Königgrätz, in which case the enemy is assumed to stand behind the Elbe, on the left bank, between Josephstadt and Königgrätz; and lastly, also for a battle near Pardubitz. In those early plans there is already in the two latter cases the idea of leaving the Army, arriving from Silesia, on the left bank of the Elbe, and to fight the decisive battle therefore with *the two main portions of the Prussian Army separated by that river and two fortresses*. I particularly emphasise this fact because, from the point of view of the older theories, it seemed a very risky procedure. But Moltke afterwards, in the official account of the war of 1866, emphatically declared once more that such an operation on both banks of a pretty formidable river was altogether intended by him.²

¹ No. 30, II. B. a.

² No. 30, II. B. 6, and 45. *Official Account of the War in 1866* pp. 230-42.

The Prussian mobilisation was not declared in one day, but gradually in the course of eight days, and if reckoned from the date of the last order, June 6th was the twenty-fifth day of mobilisation. That day passed without a declaration of war, and from this moment time was rolling on in favour of the enemy. The longer the commencement of operations was delayed, the stronger the Austrian military forces were bound to grow in Northern Bohemia, as Moltke thought, and the more one had therefore to reckon with a serious resistance in the passes of the border mountains and beyond them at the foot of the mountains. Moltke, however, did not change his intentions. Crossing the mountains on a broad front remained always the best means of bringing all the forces as soon as possible into action.

But now came important news from beyond the frontiers. It became apparent that the centre of gravity of the enemy's concentration was not in Bohemia, but near Olmütz. The most obvious conclusion was of course that the enemy intended to advance thence into Silesia. The left wing (II. Army) was thereupon strengthened and shifted more south-east; the centre (I. Army) and the right wing (Elbe Army) conformed to this movement along the Saxon frontier in order to preserve the intervals which had been hitherto kept. Should the enemy break into Silesia with a force which the II. Army was unable to resist, it was to fall back slowly fighting, and then to be supported by the I. Army; but the Elbe Army was immediately to advance into Saxony, and eventually to penetrate

into Bohemia. If the II. Army was strong enough to meet the blow, the Prussian main body was to march united through Bohemia on Vienna, and thus to snatch the initiative from the enemy.¹

The Austrian offensive did not take place, and on June 16th the hour for action had struck at last. The Army of the Elbe, which was farthest to the rear, opened the movement; then the I. and lastly the II. Army began their advance into Bohemia. If the enemy had now advanced into Silesia, it would have been a blow in the air. The reports, however, arriving about this time clearly showed that the Austrians were on the point of starting from their place of assembly in Moravia for Bohemia, and thereupon the Prussian Armies were ordered to march in the general direction of Gitschin.

This concentric movement did not come off quite in the manner Moltke had intended. The I. Army advanced on too small a front, did *not* with its left wing keep close to the mountains,² and, moreover, allowed its main body to be temporarily turned away from its general direction on Gitschin by a clever movement of its immediate opponent, the Crown Prince of Saxony. This created a somewhat serious situation for the II. Army, and it would have been only too natural if this crisis had increased the desire of headquarters for an immediate and closer concentration of all the forces. Headquarters of the II. Army indeed distinctly interceded on behalf of the older theory

¹ No. 91.

² No. 120.

of closely concentrating the Armies. But Moltke stopped the movement of the Crown Prince of Prussia the moment there was not more than a day's march between both Armies. He thereby reserved for himself the freedom of striking from two different directions, according to *various* and still possible contingencies. And thus the decisive battle of Königgrätz was brought about by an advance from two different directions, with a junction of the Armies *on* the battlefield. It is not uninteresting to take note of the criticisms which Wilhelm Rüstow, a decidedly intelligent representative of the old school, passed on the plan of the battle of Königgrätz. According to his views, the Crown Prince ought to have been moved up close to the left wing of Prince Frederic Charles on the day *before* the battle, and to have come up in line with him; but on the day of battle the right wing ought to have been strengthened in such a manner that a powerful advance on Königgrätz from that direction could have brought about the decision.¹ Therefore what he means is a frontal attack with a reinforced right wing, and in addition perhaps an arrangement for enveloping the enemy's left wing after the whole Army had concentrated on a narrow front. I must leave it to all who know the battle of Königgrätz to imagine for themselves whether with this plan of battle after Napoleon's pattern a greater success could have been achieved than was actually gained on July 3rd, 1866.

While the campaign against Austria was in progress, the following situation, which also shows

¹ Rüstow, *Strategy and Tactics of Modern Times*, I. 278 and 282.

Moltke's originality in strong relief, must be mentioned. When the enemy, after the decisive battle, retired on Olmütz, the II. Army alone followed him, the main body of the Prussians marching on Vienna. The II. Army received instructions not to attack the enemy in his entrenched camp, but to oppose only his eventual resumption of the offensive.¹ If it found the adversary too strong, it was not, however, to retire on the other two Armies, but on the county of Glatz, and to induce the enemy in such a case to follow in that direction. The movement of the main body on Vienna would thus not be immediately affected by those events, and could probably be quietly continued. Should, however, its return become necessary in spite of all, the enemy would have been again taken between two fires, and the greatness of the success at this point would have made good the time lost at another.²

A *War with France* was the very first problem with which Moltke occupied himself as Chief of the General Staff. I pass over his earlier plans of 1857 and 1858, because they are based upon very general and uncertain political assumptions, and will turn at once to his preliminary labours of 1859, when, owing to the New Year's speech of Napoleon III., the Italian war of liberation from German dominion had become highly imminent.

Moltke considers at first all kinds of cases: one, that the French will respect the Belgian neutrality; the other, that they would think it advantageous

¹ No. 170.

² *Ide* about this also Verdy, *Studies on War*, III. p. 161.

to choose the shortest route to the Lower Rhine through Belgium; and lastly, that Belgium and Holland would be willing and ready to go to war with France as allies of Germany. When war had finally broken out in Italy, the first case, that of the neutrality of Belgium, seemed the only one possible.¹ France had designated the greater portion of her Army for Italy, with the object of striking a decisive blow in that country. Austria, owing to the impossibility of entirely denuding her Eastern frontiers, was in all probability not able to appear on the Rhine in strong force. War with France was, on the other hand, very popular in Germany, and Prussia could therefore with certainty count upon the co-operation of the four German confederate army corps.

Two railway lines led already at that time from the Elbe to the Lower Rhine, and two to the Main; but only three of these four lines could be made available simultaneously for the concentration of the Prussian Army. As in those days it was still reckoned that the despatch of an army corps with all its columns and trains would take fourteen days on a single and ten days on a double line, it was more practical for all the troops within a radius of less than 150 to 180 miles from the points of concentration to march by road than to be transported by rail; and, considering all the circumstances, it was found that strategic concentration could not be generally carried beyond the Rhine. The two North German confederate army corps were immediately to join in that

¹ Moltke, *Military Correspondence*, 1859, No. 17 (May 19th, 1859).

concentration; it was desirable that the two South German confederate army corps should abandon a separate concentration on the upper Rhine, as the great strength of the French frontier there prevented any vigorous advance in that direction.

Leaving the Prussian I. army corps behind for eventual use on the Eastern frontier, a total force of twelve army corps, or more than 400,000 men, would have been assembled in that case, with probably an additional Austrian Cavalry corps. That was a formidable force, to which France could no longer have opposed an equal one. It therefore stands to reason that the strategic attack should have been contemplated at once. Now, it is highly interesting to follow Moltke in his considerations of what should be the actual objective in the war. He does not at all hold the opinion, which is considered by so many soldiers as the only correct one, that in war the maximum possible attainable must always be aimed at. He meant rather throughout to act in conformity with the available means, and discussed the efforts to gain the maximum attainable only to repudiate them.

"The operation on Paris," he thinks, "has for its object the overthrow of French Imperialism, and presupposes unity in command, or at least harmonious co-operation of all German Armies from Cologne to Milan. At the same time it has to be considered that the interests of Prussia and Austria will only go hand in hand so long as they are both fighting on separate theatres of war, but that their rivalry will be felt the moment they are

to co-operate on the same theatre. It is necessary, but very difficult, to appear before Paris simultaneously from the Moselle and from the Ticino. The French Armies must first have been beaten and the energy of the French nation been broken before the fortified capital can finally be attacked."

"How difficult even then such an attack remains, and how fatal a withdrawal would become, I will not explain here. If the enterprise succeeds, it very likely would cause the overthrow of the Napoleonic Government. But if we afterwards wished to impose upon France any dynasty or any form of government, we could certainly not, apart from the endless troubles which the duty to support that government would entail, begin with asking that government to cede us a province. No new government which had to begin with a cession of French territory would be able to maintain itself in France.

"The situation is quite different if at the conclusion of peace we are in actual possession of that part of the country which we intend to retain—that is to say, if we keep it occupied, if we have captured the fortresses in that part, and if we are ready with an Army to enforce its retention.

"The advance on Paris may, during the campaign, prove to be possible, and may even become necessary before the war can be finished. Such an operation, however, can be undertaken with far greater prospects of success if we base it rather on the upper Moselle than on the Rhine, and if we command the resources of the country between both rivers.

“Consequently, the permanent occupation of Lorraine and Alsace seems to be the more limited but immediate object of the war, and the march on Paris only a further development. Every step, every preparation, and every arrangement should therefore at once be made for the attainment of the former object.”

I remind the reader of my previous explanations in regard to the intentions of Clausewitz for the elaboration of his work, and of the *attack with a limited object*. We see that Moltke assumed here completely the same standpoint as the great philosopher of war, and that his intentions were similar to those of Clausewitz in 1831, though the immediate object of the war is a different one. Germany was not yet united or strong enough for planning a defeat of France. Far too long a time would elapse before the Austrians could cover the distance of about 450 miles from the Ticino and appear before Paris; this would allow diplomacy to bring about a different grouping of the Powers on the continent of Europe. But without Austria we were not strong enough, in spite of the respectable array of numbers which I have just mentioned, to enforce the capture of the fortified capital. We have only to remember that half of the Prussian Field Army was at that time still mainly composed of Landwehr.¹

The *limited object*, however, which Moltke thought it was only possible to attain, he intended

¹ According to II. 86 of the *Military Correspondence of the Emperor William I.*, only a third of the Landwehr Infantry was at that time armed with the needle-gun.

to fight for with the greatest possible energy. The whole force was to be organised into four Armies. One Army of three corps was to assemble in an advanced position close to the narrow strip of French frontier between Luxemburg and Saarlouis; its object was to secure the concentration of the other Armies. A second Army, consisting of four corps, was to advance from Mayence on Saarlouis and Saarbrücken or Saargemünd. The South German Army (two strong corps) was to move up from Germersheim, by Pirmasens and Hagenau, and prolong the left wing. Finally, a reserve Army of three corps was to close on the right wing from the neighbourhood of Cologne. According to Moltke's two sketches of the lines of operation, he evidently expected to find the united forces of the enemy prepared for battle behind the Scille, north-east of Nancy.¹ One army corps of the right Army was to remain in the neighbourhood of Diedenhofen, the main body of that Army being on the left bank of the Moselle. Of the reserve Army, whose lines of march from Trèves coincided with those of the right Army, one army corps at least we must assume to be watching Metz. The foremost line of the Army on the eve of the battle was thus formed by six corps belonging to the three different Armies, and on an angular front of more than eighteen miles' extent, ready to envelop the enemy. The available reserves were one to two corps of the reserve Army behind the right wing, and one to two corps of the centre Army behind the centre.

¹ Sketch I. and II. to p. 112.

The whole plan, therefore, shows the characteristic features already known to us—namely, operation with several independent Armies, which close in for battle and simultaneously attack the enemy in front and envelop his flanks.

From the foregoing it is at once apparent that Prussia's aid was not without danger for Austria. Prussia rightly demanded complete and absolute command of the whole force, which was to assemble on the Rhine; and if the Prince Regent of Prussia, at the head of twelve German army corps, should have gained decisive victories on French soil, nay, should he even win back Metz and Strassburg for the German people, his influence in Germany under these circumstances would have become so great that a revision of the constitution of the German Confederation could no longer have been avoided. And therefore Austria, after two serious defeats in Italy, preferred to give up Lombardy and conclude peace with France.

Prussia's preparations for a war against the second Empire now entered upon quite a new phase. Napoleon had hitherto gained success after success; it was obvious that, like his uncle some time ago, he would after the war with Austria soon go to war with Prussia in the hope of conquering the left bank of the Rhine. Austria was exhausted and ill-humoured, and the rest of Germany was inclined to look upon Prussia's behaviour in the conflict of 1859 in a very bad light. Prussia had therefore to reckon with the fact that, in a future war with France, she would have to bear the brunt almost alone.

The French garrisons, especially those of Cavalry and Artillery, were at that time generally close to the northern and eastern frontiers; long service was more prevalent in France than in Prussia; lastly, the French railway system was very favourably adapted for concentration. For those reasons Moltke assumed during 1860-3¹ that France would be ready to take the field much sooner than we could, and that we would therefore be obliged to leave the initiative to her.

It was politically conceivable that Napoleon might succeed in completely isolating Prussia and inducing the other German Confederate States to remain neutral. But the Franco-German frontier between Luxemburg and Bavaria was only about thirty-six miles long, and the march through this strategic defile led straight on to one of the most powerful defensive lines in the world—namely, to the Prussian fortified front on the Rhine. Strassburg, on the other hand, was a sally-port for the French, the high importance of which had been amply proved in former times. French strategy had many reasons to start operations from there, and an advance from that quarter was surely to be expected as soon as France could in the slightest degree count upon South German sympathies, or at least upon a certain inclination on the part of the South Germans to remain inactive spectators.

For some considerable time Moltke had also reckoned with a French march through Belgium. His reasons were based upon the consideration

¹ *Military Correspondence*, 1870-1, Nos. 3, 4, 5.

that France's endeavours to gain the Rhine frontier would threaten Belgian independence, and that Belgium would undoubtedly have acted wisely in such a war to side with Prussia. The idea was justified in itself, but the Belgian Government was hardly strong enough to pursue such an energetic policy, and for France it was certainly safer to respect a neutrality which enjoyed the special favour of England.

Moltke therefore expected a strong French Army of the right to step on German soil from Strassburg, the main Army to advance through the Palatinate towards the Middle Rhine, and a weak Army of the left to move in the direction from Metz on Trèves.

Moltke intended to concentrate the Rhenish army corps near Trèves with the object of opposing the attack of the latter Army. He thoroughly examined Willisen's idea of a large entrenched camp about Trèves, acknowledged that it would have many advantages, but found that it had a drawback which is peculiar to all frontier fortresses—namely, that it is always difficult to concentrate there the required number of troops fully equipped in time.¹ As he was generally of opinion that the extension of the railway system is of far greater importance for the conduct of war than the construction of fortifications,² he abandoned the idea of creating a new fortified place in that neighbourhood, and directed the army corps, which was to assemble there, to give way before superior forces.

¹ No. 4 (p. 40).

² No. 8 (Letter of May 16th, 1867).

The first available army corps from the interior of the country were to concentrate in the *flank position on the Main*, which is already known to us; and Moltke spoke very highly of the great importance of that position and of Mayence, of which place he says that "in a war towards the west it is both the shield and sword of Prussia."¹

After sufficiently providing for security there, another Army was to be formed on the Moselle between Trèves and Coblenz, and according to circumstances he made provision for three cases—namely, he assumed the Army of the Moselle to be twice as strong as the Army of the Main; that both would be of equal strength; and that the Army of the Main would become the main Army, and the army corps on the Moselle be left without support. I need hardly state that in the first two cases the Army of the Moselle was to act offensively against the enemy's flank.

As regards the South Germans, Moltke reckoned with the fact that they would base themselves on Ulm, and look to support from Austria; he did not, however, give up all hope that they would be ready to join the Prussians on the Neckar. In the latter case it would be important that the French main Army should not succeed in getting between the South Germans and the Army of the Main after rapidly crossing the Rhine. The Army of the Main might therefore be directed to leave its flank position, and defend immediately the portion of the Rhine between Mannheim and Mayence.

¹ No. 4 (p. 37).

Measures, however, were also provided for in case France should after all decide to march through Belgium. The Army of the Moselle in that case would become the Army of the Lower Rhine, which was to defend the river frontally, while the main Army on the left bank of the Rhine would cross the Moselle and take the enemy's attack in flank.

Lastly, should the enemy hesitate to attack, the German Armies would gradually advance from the Moselle and the Main as far as the Saar and the French frontier of the Palatinate, and be ready to carry the war into France.

The next plan of Moltke for a war with France is dated August 8th, 1866, when, *before* the conclusion of peace with Austria, an armed intervention by Napoleon III. seemed possible.¹ That plan is particularly grand and bold, and when Bismarck, in his *Thoughts and Recollections*,² expressed himself adversely in regard to the idea upon which that plan is based, he surely was wrong in this instance where opinions differed.

Moltke relied upon the South Germans immediately siding with the Prussians if the French should intervene. This hope, it is true, is in striking contrast with the cautious manner in which he had spoken in former years about the effect of German national feeling, but it was absolutely justified by the German national state of mind at that moment. I have still a vivid recollection of the sensation with which on July 22nd or 23rd, 1866, in the

¹ *Military Correspondence*, 1870-1, No. 6.

² *Gedanken und Erinnerungen*.—TRANSLATION.

small health-resort Pyrawarth, a day's march north of Vienna, I read in a Bavarian journal the precise and blunt declaration that should the French dare to intervene now, they would find both belligerents who are now fighting each other on the Franconian Saale at once shoulder to shoulder on the Rhine. And that this was also the actual feeling of the South German Cabinets has been clearly evinced by the treaties of alliance which in the middle of August were secretly concluded between Prussia and the South German States.

As Austria was still obliged to fight the Italians in the south, Moltke considered four army corps in Northern Bohemia amply sufficient for an obstinate defence behind the Elbe against the Austrians. The greater part of the Prussian forces he intended to move by four railway lines through North and South Germany to the Rhine, and as there were on the Main at that time already 90,000 Prussians and North Germans, and as the South Germans could come up with 80,000 men, he counted upon having more than 300,000 men available on the Rhine by September 9th. This is the first grand use of railways as an inner line that was ever planned, and for this reason alone it deserves our special attention.

Bismarck says that in those Nikolsburg days, when he first questioned Moltke about this matter, he would have been better pleased if Moltke had contemplated finishing first and foremost the war with Austria by continuing the offensive, and then afterwards turning against France. He at the same time imagined the French to intervene with

only a small force, it is true, but so early that it could come to the aid of the South Germans before the decision was brought about on this special theatre of war. Anybody who is intimately acquainted with the Main campaign will know that it was too late for this in the last week of July. Moltke at Nikolsburg could not be altogether aware of it at the time, but his never-failing tact in gauging any situation told him what was the correct thing to do. And that is why he wished to solve the French question at once and thoroughly, having full confidence in the efficiency of the Prussian Army, which had been so recently proved, and in the alliance which was still in force with Italy. There is such energy and self-reliance displayed in this plan of war that it will certainly secure a place among the boldest schemes of ancient and modern times.

After the available military forces of the North German Confederation had grown to thirteen complete army corps, and after considerable perfection had been carried out in the railway system, Moltke could with greater certainty aim at an absolutely offensive war with France. He deducts three army corps for observation of Austria, and attaches a few Landwehr divisions to them. These forces were to take up a position in Saxony or Silesia, and in case of need to delay any hostile advance as much as possible, and should not be afraid even of acting offensively from the Elbe against the Austrian flank. At the worst they would have no other course open than to withdraw under the shelter of Magdeburg. "Even

should Austria have actually occupied Silesia, Brandenburg, and the capital, and our weak defensive Army have retired without being completely beaten, we would not have suffered any decisive disadvantage."¹ For if such a case should arise at all, it could only happen after some considerable lapse of time, owing to the slowness of the Austrian mobilisation, and within that time we could surely hope to have gained decisive successes against France. An advantageous peace would then have to be granted to that opponent, in order to march through South Germany down the Danube into the heart of the Austrian empire.

It is in connection with this uncertainty about Austria's attitude that Moltke did not count with certitude upon the Bavarian military forces as available for an offensive against France. He assumed them to stand defensively on the Inn in the case of Austria showing decided warlike intentions, and considered it anyhow a welcome advantage that they would thereby at any rate attract some part of the Austrian military forces. The Bavarians could also there effectively protect the transport by rail of the Armies which would be withdrawing from France, if in the second act of the double war it became necessary to march down the Danube.

On the French frontier he proposed to concentrate all available forces in the narrow strip between the Moselle and the Rhine: a right Army of two corps north of Saarlouis, two Armies

¹ No. 16 B (p. 108).

of the centre, each composed of three corps, on the line Neunkirchen to Zweibrücken, a left Army of two North German army corps, at least two South German divisions, and perhaps also two Bavarian army corps, near Landau and Germersheim.¹ If the enemy should advance to attack during our concentration, a defensive battle would be fought in the Palatinate, the centre forming the front, while the right Army would fall upon the enemy's left flank, and the left Army be ready on both banks of the Rhine to oppose the Strassburg Army of the French wherever it should choose to advance. But if the enemy were advancing towards the Lower Rhine, the German forward movement on the left bank of the Rhine would force him to fight a battle with a changed front.

If the enemy had not attacked, and was perhaps standing even in the strongest position which he could take up, namely, behind the Moselle on the line Metz to Diedenhofen, the German offensive was with its strong centre to take the direction on Pont-à-Mousson. It would be the most dangerous direction for the enemy, because it not only threatened his line of retreat towards the south, but also, as a further development, his retreat on Paris. The right Army was to cover this march on Pont-à-Mousson by an advance on Metz; the left Army, quite independent of the movements of the main body, was first, by a vigorous advance into Alsace, to drive the enemy thence, and then to seek a junction with the centre in the direction of Nancy.

¹ Nos. 7, 10, 18.

For the forward movement of the centre only two roads were available in the Bavarian Palatinate, and Moltke at first¹ had in his mind that the centre would be organised in two Armies of three corps each, and that to each Army one road would be assigned, and that therefore the centre had to march in three echelons, one behind the other. By shortening the columns as much as possible in using by-roads, and by starting the leading corps of each column early in the morning, and the next corps after the midday meal, the whole Army would have been able to fight a battle with united forces at least on the second day. A strategic advanced guard with plenty of Cavalry was to precede and cover the deployment in case of need. If the enemy should disturb the movement by operating from Metz, a wheel in that direction would be easy, and lead to co-operation with the right Army. Should the enemy attack from the south—that is to say, from the direction of Nancy—it was possible to count already upon a pressure on the enemy's flank by the left Army, if its advance into Alsace should have been successful.

It can in no way be disputed that this first plan of an advance on Pont-à-Mousson shows an extraordinary similarity with one of Napoleon's operations with massed forces. In a recast of this plan, however,² this movement begins to present a different appearance. The centre Army in that plan is divided into an Army of the first line, composed of four corps, and into a reserve Army of

¹ No. 12 (November 16th, 1807).

² No. 20 (May 6th, 1870).

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two corps, which is following in rear; after crossing the French frontier the more ample roads are made use of in such a way that three columns, two army corps deep, could be formed. But even when arranged in this way the similarity with the Napoleonic mode of operation cannot be denied. It was caused by the force of circumstances and the closeness of the original concentration, which it was impossible to arrange differently, if simple points of view were to prevail. Moltke looked upon it as an exceptional case; and that is why he himself explicitly said,¹ "The next strategic deployment, if we are not forced into battle at an earlier date, will be made on the line of the Moselle Lunéville—Pont-à-Mousson"; that is to say, not before the centre has again deployed on the Moselle and the left Army has advanced from Alsace close to the Moselle is the actually intended strategic deployment complete.

The similarity with a Napoleonic operation is therefore altogether only one in appearance. We have here to do with an instance similar to that furnished by the example of 1805, which has lately been so much discussed, where the Napoleonic operation, in the opinion of so many authors, is said to bear throughout the stamp of Moltke's mode of operation. If we look on the lines of march of the French corps from the extensive arc of Strassburg—Manheim—Würzburg—Bamberg to the short line Donauwörth—Ingolstadt, they show us indeed some similarity with the Prussian lines of march from the arc of Torgau—Görlitz—Neisse to the country of

¹ No. 20 (p. 132).

Gitschin and Josephstadt. But we must not overlook here one very essential difference. If Moltke in our days had an Army composed of the same number of battalions, and therefore of at least half as many more men with about five or six times the number of guns and vehicles, standing on the arc Strassburg—Manheim—Würzburg—Bamberg in the same manner as Napoleon's "Grande Armée" was actually standing on September 24th, 1805—therefore before Ney had left the neighbourhood of Hagenau and was marching down the Rhine—and if it devolved upon him to lead that Army against an enemy who is known to be posted on the right bank of the Iller, he would hardly have directed the strong right wing of the Army to march from the Upper Rhine by the roundabout way of Stuttgart. He would probably have voluntarily abandoned the close concentration of the whole Army on the enemy's flank, and would rather have sent an Army of the right wing by the nearest road across the Black Forest and the Upper Danube against the enemy's front on the Iller, and only have left the stronger Army of the left wing to continue its march on the enemy's flank.¹

While I am reviewing the strategic deployment against France, I must not omit to mention distinctly that Moltke had repeatedly characterised

¹ As the above opinion, when I first expressed it, was strongly contested, I have now the satisfaction of being able to refer to General v. d. Goltz in its support. He is also of opinion that Moltke would have used the shortest roads from the Rhine and Main to march upon the enemy's front as well as his flank (*Conduct of War and Leading of Armies*, p. 83, Krieg- und Heerführung).

the concentration in the Palatinate as one on the inner line between the two natural centres of concentration of the enemy, Metz and Strassburg. This description is absolutely correct as regards concentration itself, but it is no longer so for the subsequent operations. There is in this case almost nothing which reminds us of that marching and counter-marching, which is so characteristic in Napoleon's time, in order to beat the various portions of the enemy one after the other. This was clearly shown in 1870, when the movements were actually carried out. Owing to an apprehension of a strategic surprise which it was feared the enemy might make with his troops on a peace establishment, the detrainment of the centre Army was removed to the Rhine, and the commencement of the general offensive was thereby considerably delayed. But the Bavarians, in a most gratifying manner, placed their whole available military forces at once at the disposal of the Prussians, and thereby considerably increased the strength of the left Army (III.). Thereupon Moltke desired this Army to start as soon as ever it was possible for Alsace, and settle accounts with the adversary there, while the centre Army would be still carrying out its forward march through the Palatinate.

Headquarters left the manner of solving his task completely in the hands of the Crown Prince; he was not at all expressly enjoined to force the enemy from his lines of communication with the French main Army, which would have been in conformity with the nature of an operation on the inner line. On the contrary, Moltke wrote to

Blumenthal, the Crown Prince's Chief of the General Staff: "The defence [on the part of the French] in a strong position behind the Saar with all available forces is therefore what they seem to intend. The frontal attack of the II. Army [with which the reserve Army was incorporated] will then be considerably supported by an advance of the III. Army, which, in order to make use of as many roads as possible, ought to be moving on as broad a front as the proximity of the enemy will permit. . . . The simultaneous participation of the three Armies in the decisive battle is the object which is aimed at, and it will be our endeavour to regulate the movements for its attainment."¹

Now, as Moltke about the same time wrote to the Commander-in-Chief of the I. Army that he is to direct his attack against the enemy's left flank,² we have an opportunity of clearly demonstrating his whole strategic creed on this example. He did not expressly demand that the enemy's Army in Alsace should be driven in a southerly direction, because he would generally have liked best to see the enemy driven towards the northern frontier. If, nevertheless, the battle in Alsace turns out in such a way that the defeated adversary is able to escape to the south, the III. Army would be strong enough to divide its forces—that is to say, to operate now actually upon the inner line, or, by extending its front, to make provision for a participation in the battle on the Saar. But if the III. Army could drive

¹ No. 101.² No. 107.

the defeated Army in Alsace upon the French main Army on the Saar, so as to allow the III. Army in its pursuit ultimately to envelop it on the south, the decisive battle would have taken the form of a twofold envelopment of the enemy's flanks.

And on the other wing the I. Army, facing south, was to move against the enemy's left flank, although pushing the enemy back towards the south was not at all strategically desirable. The tactical necessity of surrounding the enemy it is which takes precedence of that strategical requirement; we must first of all gain the victory before we can think of making use of that victory.

Moltke, soon after that great war, convincingly showed, in a brief essay *On Strategy*, how utterly wrong it would be to act in the course of events by a rigid system, and to overlook the requirements of the moment. In conformity with Clausewitz's definition, "that strategy is the employment of the battle to gain the end of the war," he demanded that the strategist should make the best use of every successful action, and base upon it his further plans, even though he had thought out things differently before the action. "Strategy is a system of expediciencies. It is more than a science; it is the application of knowledge to practical life, the development of the original leading idea in conformity with ever-changing circumstances; it is the art of acting under the pressure of the most trying circumstances."

In this spirit he himself acted in an exemplary manner, and with the lofty calmness of a philo-

sopher, even though his plans were often painfully disturbed by faults and mistakes of the lower grades. As soon, however, as he was at some liberty to trace the principal outlines of fresh operations, his fundamental ideas became again at once apparent. We can observe this after the battles around Metz, in the advance on a broad front of the III. and IV. Armies from the Moselle to the Marne. MacMahon's attempt to turn the German right flank and the subsequent evasion of the enemy obliged the Germans temporarily to adopt a very close concentration. But also from this concentration a way was soon found again for a double turning movement, which at Sedan led to the most famous capture of an Army in the open field ever known in history. When, after the fall of Metz, the II. Army was set free for the campaign on the Loire, Moltke would have much preferred to send it into the rear of the French Army of the Loire, although comparatively weak forces only were available to oppose it in front; and only reluctantly he decided to abandon an operation from two sides against this temporarily dangerous adversary. Even during the last phase of the campaign he was fully determined that Werder's corps should accept battle against an enemy three times its number, and he sent the force available for its support by the nearest road into the rear of the enemy. And such a procedure would not at all have been the only expedient in a difficult situation, as some may think. If it had been desired to act in the first instance upon the principle of massing troops, a

direct support of Werder by shifting troops by rail might very well have been considered.

After we have become aware by a long series of examples of Moltke's way of thinking and proceeding when designing plans for great operations of war, the actual text of the principles will be of special importance for us, which he on that subject has embodied in the *Instruction for Superior Commanders of Troops* in 1869¹:

"The handling of large Armies cannot be learned in peace-time. We are confined to the study of individual factors, especially such as ground, and to experience of former campaigns. But progress in technics, easier communications, new armaments, in short, completely altered conditions, make it appear that the means by which victory was formerly gained, and even the rules laid down by the greatest captains, are frequently inapplicable to our present wants. . . ."

"The doctrines of strategy do not go much beyond the rudimentary propositions of common sense; they can hardly be called a science; their value lies almost entirely in their application to the particular case. We must with proper tact understand a situation which at every moment assumes a different aspect, and then do the simplest and most natural thing with firmness and circumspection. In this way war becomes an art, an art indeed which is served by many sciences. These latter are far from making a man a General, but where he is deficient in them, they must be made up by other qualities."

¹ *Tactical-Strategical Essays*, pp. 172-3, 182-3, 210-1. Italics are partly given in the original and partly caused by myself.

"Very large concentrations of troops are in themselves a calamity. The Army which is concentrated at one point is difficult to supply and can never be billeted; it cannot march, it cannot operate, it cannot at all exist for any length of time: it can only fight."

"To keep all the forces concentrated without a distinct object or otherwise than for a decisive battle is therefore a mistake. For that decisive battle we can certainly never be too strong, and therefore it is absolutely necessary to summon even the last battalion to the battlefield. But any one who wishes to close with his enemy must not intend to advance in one body on one or few roads."

"To remain separated as long as possible while operating, and to be concentrated in good time for the decisive battle, that is the task of the leader of large masses of troops."

"No calculations of time and space will guarantee success where accidents, errors, and deceptions form part of their factors. Uncertainty and danger of failure accompany every step towards the aim, and it will only be attained if the fates are not altogether unkind; but in war everything is uncertain, nothing without danger, and we will scarcely attain great results in any other way. . . ."

"If we realise that a Prussian army corps, with all its trains formed into one column, occupies a depth of about eighteen miles, that this normal length very quickly increases when on the march, and easily grows to double that length on bad roads in bad weather or owing to partial checks, that the head of the column will already have

arrived in the new bivouac before the rear has quitted the old one, we find that at the most only *one* army corps could be moved on one road in one day.

"Of course we would leave behind all the trains that can be spared when an action is imminent, yet *the actual fighting portions* of the corps formed in *one* column still occupies a depth of twelve miles, the extent of an ordinary day's march, and the head of the column could not be supported by its tail before some hours have passed.

"It is therefore an error to think that we are concentrated if everybody is or many are marching on one road. We lose more in depth than we gain in breadth; for two divisions marching abreast of each other at an interval of four and a half to seven miles will more easily and better support each other than if they followed behind each other. It is thus self-evident how important it is for large bodies of troops to march if possible in more than one column. The troops are thereby spared much fatigue, and their housing and supplying is considerably facilitated.

"This mode of procedure naturally finds its limit in the number of available roads and by the necessity of mutual support. Not everywhere will there be found many roads, converging approximately towards the same object; nor must the columns be completely prevented by obstacles from co-operating, if co-operation is likely to become necessary.

"Of course the number of parallel roads decreases in the same ratio as the space from which the

start is to be made contracts. An Army concentrated at one point can no longer be moved otherwise than across country; in order to be able to march, it must again separate either in breadth or depth, which is equally dangerous in face of the enemy. If therefore we wish to operate, we must continue to march in separate bodies. . . .

"It will be gathered from what has been stated that little success can be expected from a *mere frontal* attack, but very likely a great deal of loss.¹ We must therefore turn towards the *flanks* of the enemy's position.

"If this is to be done with undivided forces, a small change in the direction of march would already suffice for small bodies; because a division, for instance, can even under favourable conditions of ground scarcely occupy more than a mile of front. *Armies of more than 100,000 men, on the other hand, occupy more than four and a half miles of space. To turn their front would mean a day's march*; this would remove the decision by arms to the next day, give the adversary time to evade it, and as a rule endanger our own communications by our intentions of threatening those of the enemy.

"Another means consists in containing the enemy in front with part of our forces and enveloping his

¹ In the chapter "Tactical Matters, Infantry and Rifles," Moltke states that Infantry may consider itself *unavailable* in front. Already in a very much earlier essay ("Remarks of April, 1861, on the Influence of Improved Firearms") he compared the *open plain* with the impassable obstacle of a wet ditch of six feet depth, and summarised his opinion to the effect that the attack must avoid the plain and that the frontal attack must give way to a turning or enveloping attack.

flank with another portion. It is then, however, necessary that we remain strong enough in front so as not to be overpowered before the flank attack becomes effective. We must also be active enough in front in order to prevent the enemy from throwing himself with superior forces upon our flank attack. At any rate, we are obliged to divide our forces in those cases.

"The moral effect of a flank attack by its fire alone will be greater upon small bodies than upon Armies. These latter, however, cannot so easily escape the consequences of a successful flank attack, on account of the greater difficulty of their movements.

"If the Army has approached the enemy in one body before the battle, every new separation with the object of enveloping or turning the enemy will necessitate a flank march within his striking distance.

"If we do not wish to enter upon such tactics, which will always remain risky, there is nothing else left but to reinforce that wing which is to overpower the opposite hostile one, and this would after all be again only a frontal attack. It may succeed, however, if part of the reserves of the centre and of the other wing could be spared for that purpose.

"Incomparably more favourable will things shape themselves if on the day of battle all the forces can be concentrated from different points towards the field of battle itself—in other words, if the operations have been conducted in such a manner that a final short march from different points leads all available forces simultaneously upon the front and flanks of

the adversary. In that case strategy has done the best it can ever hope to attain, and great results must be the consequence."

Those are Moltke's strategic doctrines as he had placed them before his august War-Lord, that they may become a guide to be followed by the leaders of the Army in trying times. And I think there is no longer any dispute possible that they are in actual contrast with Napoleon's deeds and words. I again refer to Yorek von Wartenburg's book on Napoleon, where in every single chapter fresh proofs are constantly brought forward that his hero considered *the movement of masses on one line of operation and the pressure of masses on one point* of the enemy's lines as the climax of all strategic wisdom. That great practical soldier Napoleon, in his long and eventful career during fourteen years of war, has of course twice or three times made use of accidental circumstances which caused him to operate so as to enter the battlefield from two different directions with the object of enveloping the enemy; but those were with him only exceptions. *And what with him was an exception has become with Moltke the rule; what with him was the rule is with Moltke the exception!*

CHAPTER IX

VARIOUS MODERN THEORIES

BEFORE describing the elaboration which Moltke's theories have recently been subjected to, I must, first of all, give a general review of the strategic literature of the second half of the nineteenth century. We must, then, bear in mind that Moltke's plans of operation were only published during the last decade of the past century, and that the *Instructions for Superior Commanders of Troops* became known only as late even as the anniversary of his hundredth birthday. Till then the outer world, when criticising Moltke, could only judge by facts, and it is an old experience that different critics may interpret facts sometimes in very different ways. For is it not true that Heinrich von Bülow found in Buonaparte's first campaign a confirmation of *his* theories?

I must, however, be very brief in this review, else I run the risk of losing myself in a mass of details of strategy and neglecting my main point—that is to say, the development of the guiding ideas.

Chronologically, Wilhelm Rüstow heads the list. In 1857 he published a book on *Generalship in the Nineteenth Century (Die Feldherrnkunst des 19. Jahrhunderts)*, which was followed in 1872 by

another work on *Strategy and Tactics of Modern Times (Strategie und Taktik der neuesten Zeit)*. Rüstow is really a staunch adherent of Jomini-Willisen's system. But as he fully recognised Clausewitz's intellectual eminence, he made strenuous efforts to reconcile apparent contradictions in both systems, and to bring into strong relief where they both agree. In his first-mentioned book Rüstow defends with a certain amount of passion the sentence that the new rifled arms—muzzle-loaders—will not and must not cause a change in the art of war, not even in tactics, much less in strategy. Strategy will have to remain eternally as Napoleon had formed it. In his later work he admits already that some alterations in the application of tactical formations could not be avoided; but as regards strategy, he maintains his former standpoint. In his considerations of the events of 1866 he praises the Austrian strategic concentration about Olmütz, and can only approve of the Prussian concentric attack as an adaptation to peculiar circumstances. He distinctly repudiates the idea that the operation on the inner line has lost any of its importance, and that the enveloping form has gained anything on the theatre of war in our time. "Operation on the inner line is universally recognised as the most fruitful that can be imagined, and is that form which allows even an inferior force to conquer a superior force. In this kind of operation the spirit of the art of war reveals itself in the most decisive manner."¹ I have previously mentioned

¹ *Strategy and Tactics of Modern Times*, I. 108.

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that Rüstow condemns the plan for the battle of Königgrätz, and that he proposes, in substitution, a battle with parallel fronts and reinforced right wing (*Flügelschlacht*).

In 1869 the Russian Leer published a work under the title *Positive Strategy*, although the author particularly emphasises that it is difficult to formulate positive rules on this subject, and that historical studies could do the most in preparing for generalship. One would think that Leer, who is very well versed in German literature, would have a special inclination for Clausewitz by reason of the point of view which he takes. But he characterises our German philosopher of war as "too nebulous," and generally adheres to Jomini's theoretical views, though the absolute superiority of the inner line does not appear to him so equally certain.

Blume comes next (1882) with a study called *Strategy*, which originated from the lectures on Military History which he delivered at our Staff College.

I have already incidentally mentioned that Blume is, to a certain extent, opposed to Clausewitz as regards his theory of defence. In the main, however, he relies upon Clausewitz's work *On War*, and, above all, adheres to his so very important principal point of view, that theory should be more in the nature of speculation than of doctrine. Blume took part in the wars of 1866 and 1870-1 at Army headquarters, is well versed in Moltke's mode of thought, and gives expression to it, without, however, laying special

stress upon the feature which we have recently discussed, and which at the present moment is so much controverted. As regards strategic defence, he advocates, it is true, the concentration of all the military forces in one central position, with the object of operating from it on the inner line. But operations on the inner line have nowadays lost also for the defence most of their former importance; and any one who assembles in a central position very much invites the danger of being surrounded.

W. von Scherff's main work, *About the Conduct of War* (*Von der Kriegführung*), published in 1883, is a most singular book. The author is intimately acquainted with Clausewitz, for he has annotated the latter's work *On War* in the series of "Military Standard Works" (*Militärische Klassiker*). Frequently combating Clausewitz's ideas already in these notes, he takes occasion, in the preface to his own theory of war, to emphasise particularly that in the work of that author we "find, above all, only what we can *not* teach about war." Scherff, in opposition to this, wants to be not only speculative, but to furnish positive doctrines and instructions; and, conformably to these fundamental intentions, he, in his general ideas on war, chiefly follows Jomini, and still more Willisen.

But Scherff's individuality, in spite of this emulation, is clearly discernible. It shows itself already in his discarding the traditional separation of strategy from tactics, because these terms cannot be clearly distinguished from each other, and

by his introducing several new distinctions into the theory, the necessity and usefulness of which are not without good reasons again contested by others. I avoid their enumeration, because I have promised the reader to spare him as much as possible new terms. Scherff's whole theory is built upon the fundamental idea, "*that as regards the handling of masses for the ultimate attainment of the object of operation, that is to say, for the strategic-tactical victory in battle, the great Corsican hitherto has been and must remain without a rival.*" And consequently he recommends: "to keep all the forces as much as possible collected, and only to consent to a separation when such is absolutely necessitated by considerations of supply and by the requirements of detached duties, or when there is a guarantee that by this division of forces the enemy can really be deceived. Only an actual and considerable numerical superiority would allow us, without disadvantage, the luxury of separation."¹

Scherff perceives in the maintenance of close concentration a pronounced advantage, in the completed strategic concentration a superiority over the enemy, and in the separation of forces a disadvantage, which is sometimes unavoidable, and could only be compensated for by the advantage of a concentric advance towards the battlefield, provided it is particularly well conducted. While having this tendency of leading the massed Armies to the battlefield in the old Napoleonic fashion, he is very emphatic on the point that a battle

¹ Pp. 330, 632.

should not degenerate into a uniform and even struggle along the whole front. One wing, as a matter of principle, should rather always fight a containing action (to demonstrate), while the other, strongly reinforced, is fighting the decisive action. In case the direction of advance has not led the Army upon one wing of the enemy, and therefore has not ensured envelopment, the decisive wing must try tactical envelopment. I have previously pointed out that with the long range of modern firearms it is uncommonly difficult, and for large bodies of troops even impossible, to carry out such a movement when close to the enemy. It is to-day no longer feasible what Clausewitz was still fully justified in assuming as possible and permissible, unless quite peculiar conditions of ground favour an envelopment from a short distance.

The decisive battle fought on one wing (*Flügel-schlacht*), as we understood it above, and which is brought about by a special plan for the battle after the Army has completely concentrated, is what, according to Scherff's theories, should be aimed at as a matter of principle. He thinks that not only the battles of Frederic the Great, but also those of Napoleon, were chiefly fought as decisive battles on one wing (*Flügel-schlachten*)—an opinion which, as my readers know, I cannot agree to as far as it concerns Napoleon. It must be at least restricted to this extent, that in the course of Napoleon's career as a General his idea of penetrating the centre gained constantly greater importance. Frederic, on the other hand, is



undoubtedly one of the chief representatives of fighting the decisive battle on one wing, and it is very characteristic of Scherff's mode of thinking when, after describing the co-operation of the three arms in battle, he expressly says that the picture thus drawn "is nothing else but a reproduction of Frederic's battles adapted to present-day requirements."¹ This is certainly true as regards Scherff's theory of tactics, which he considers necessary in our days. In like manner, as in former days the order of battle of the assailant was formed in several lines beyond gun-shot, and then uniformly and simultaneously led forward on to the enemy's position by one single movement, so will also Scherff do it to-day still. The only differences are that the first line is not composed of men shoulder to shoulder in three ranks, but of a skirmishing line, and the number of lines is considerably increased; that the platoon fire during the advance, when the different sections alternately stopped and delivered a volley, is replaced by skirmishers, who with perfect regularity alternately lie down and fire and advance by rushes; and that from the outset constant support and reinforcements for the first line are provided for by the reservoir of succeeding bodies. The fundamental idea, however, is the same—namely, that all fire in the attack is not delivered with the object of breaking down the enemy's resistance, but rather as an auxiliary means of making it somewhat easier for the troops who are advancing with the object of using the bayonet

¹ P. 329.

to bear the unavoidable losses. This is an attempt at self-deception meant to strengthen the morale of the men. Scherff is just as much convinced that the fire of the defence will always remain superior as they were convinced of that fact in the eighteenth century, and that is the reason why he lays just as much stress upon the rapidity with which the whole attack should be carried through as they did at the time of Frederic the Great.

It is very interesting to read Scherff's searching inquiries *On the Execution of the Attack (Von der Durchführung des Gefechtes)*. He explains numerous possibilities—how the form of combat can be more or less shaped in compliance with all the rules of the art of war; how the different tasks of our own two wings—decisive action or containing action—are determined according to strategic and tactical points of view; how these different tasks may even during the course of an action, and according to the enemy's dispositions, be differently allotted; and how the exchange of rôles will come to pass, when the one party which was first attacked prepares for a counter-attack with one or the other of its wings. All this might be perfectly justified if we were able to carry out the attack in such a manner as Scherff presumes we can do. But—I do not attempt to bridge the chasm which separates Scherff's opinions from my own—the whole discussion has the one great fault that the execution of the attack in the proposed form has become completely impossible, owing to the fire-effect of the defence. That



question has already been so often and so thoroughly discussed that I need no longer dwell upon it here. Nowadays the rifle must not be looked upon in the attack as in former times, merely as a handle for the bayonet, but as a weapon with which we are to gain a real superiority of fire over the adversary. In order to obtain that superiority we must as a rule, and particularly in a regular battle, keep up a steady musketry practice from our fire-positions against those of the enemy, and it is then the difficult task of the attack to bring the Infantry, as much as possible under cover, forward into positions from which it will be able to direct a deliberate and well-aimed fire against the defender. But Scherff's normal attack is, I am convinced, impossible; and if that normal attack is impossible, then the whole of his tactical and strategic theories which he developed in his work *On the Conduct of War* tumble to pieces.

The Belgian *Fix* and the Frenchmen Berthaut and Jung, who wrote about strategy in the eighties, I may take collectively as one group, which is unanimous in following Jomini throughout. The two former apparently know, besides Jomini, only the Archduke Charles, and Jung alone has read Clausewitz. Berthaut sometimes remonstrates against their master by giving his opinion in a reasonable manner about the vast amount of technical terms with which so many authors spice their works so much, and thereby render them indigestible. But this impulse of independence does not go very far.

Jung, it is true, quite correctly recognises that the German General Staff has a certain inclination for the enveloping form (*ordre en équerre*), but he shows no appreciation for Moltke. He perceives in our leading strategist only the patient arithmetician and stubborn toiler, whose fame did not rest upon his strategic designs, but upon the training of the General Staff. Since we Germans have been taught by Clausewitz that everything in war is simple, we do not at all claim that our adversaries should find an extraordinary depth in Moltke's thoughts. But whether it is wise on their part systematically to ignore a person who has obtained such great successes is quite another question. And there is of course a purpose in acting thus. Jung is far surpassed in his ignoring of Moltke by Lewal, who commanded the 17th French Army Corps in the eighties. On the occasion of Moltke's death he published a pamphlet full of passionate hatred, and with incredibly faulty opinions on Moltke, which is the more surprising since Lewal is undoubtedly a highly educated man. He misses in Moltke inspiration, boldness, the flash of genius, and calls him a curious specialist, who brought the routine in the leading of troops to high perfection; he finds that Moltke—listen and marvel!—nipped in the bud with relentless rigour every tendency to independent thought in subordinate leaders. Moltke's successes, according to Lewal, were entirely due to the faults committed by the enemy; he had, however, understood with some ability to make use of French ideas.

I mention all this chiefly for the reason that we will have to occupy ourselves with one of Lewal's works, which was published in 1893 and 1895 in two independent volumes, named *Stratégie de marche* and *Stratégie de combat*. It is one of the most remarkable productions of mental labour in the domain of strategy, it is particularly uniform in plan, and a work complete in itself; and just for that reason it may be highly dangerous reading for those who have not sufficient experience in the practical handling of troops and no extensive knowledge of military history, or who are generally inclined to be easily dazzled by logical conclusions. In the domain of war we can certainly do as little without logic as anywhere else; but at every moment critical examination, with the aid of experience, must go hand-in-hand with speculation, else we must lose our way.

Lewal knows Clausewitz well enough; but his spiritual training he has naturally received from Jomini, and he adheres to Jomini's fundamental axiom of the uniformity of warlike action, though in one direction he has assumed an independent standpoint.

In spite of my aversion to the multiplicity of technical terms in our profession, I acknowledge that Lewal has rendered one good service to our subject by arranging the term turning, or enveloping, under three sub-heads — namely, *mouvement enveloppant*, *mouvement tournant*, and *mouvement débordant*.¹ The first form, the two-fold envelopment, he entirely rejects, in spite of

¹ *Stratégie de combat*, ii. 31.

its occasional success, of which Ulm and Sedan are the most prominent examples. The second form, the single turning movement, where a portion of the Army operates independently from a distinct point against the flank of the enemy, and only on the battlefield joins with that portion of the Army which is operating against the front, is, according to Lewal's opinion, very seductive, but very difficult to carry out, as the portion which is carrying out the turning movement must neither arrive too early nor too late, and because all the modern means of communication would, as he thinks, not be sufficient completely to guarantee a timely arrival. All *opérations isolées ou séparées* ought to be condemned. Napoleon's enterprises of that sort had never succeeded except at Auerstädt. It is absolutely necessary constantly to guard against the tendency of extending the front and far-reaching enveloping movements.¹

Nothing is therefore left except out-flanking the enemy, which consists in prolonging the fighting line to the right or left, and bending it towards the enemy's flank. An offensive flank is therefore to be formed by the front line, which must, however, remain in close touch with it, and on no account be separated by a gap through which the enemy might be able to penetrate. For Lewal is of opinion that the growth of the Armies and the powerful fire-effect will lead us nowadays to operate *still more concentrated* than formerly,² and the fear of likely gaps in the line of battle is so pronounced with him that it reminds us

¹ II. 182.

² II. 30.

altogether of the times of linear tactics. This fear is in no way justified by the fact that with our long-range weapons we can command even great gaps between bodies of troops in a manner of which they had no idea in former times. ²

Lewal shows his independence of Jomini in his complete rejection of deep march formations, such as one army corps following behind the other on one road.¹ Everything which he urges against the movement of large bodies of troops on one and the same road is absolutely correct, and even what he says about the great inconveniences arising from the length of column of a single army corps is perfectly right. We also follow the principle to march, if possible, even an army corps by divisions on different roads, so as to save the troops fatigue and facilitate billeting, and by these means to keep the troops more efficient for fighting. For operations of large Armies the army corps will nevertheless still remain that strategic unit which on one road can march in one day from one position of assembly to another which is a day's march distant, whether in advance or retreat.

But Lewal rejects even divisional columns on one road as too long; he says that its deployment for action takes far too much time, and he insists upon all operations in the neighbourhood of the enemy—namely, in a war between France and Germany—should be carried out from the outset by columns of no greater length than a brigade. And this is to be done as a matter of principle in such a manner that each division will form a bundle

¹ *Stratégie de marche*, chap. xi. etc.

(*saisseau*) of three columns, one of which would comprise the Artillery and all the trains, or at least the greater part of them; while each of the other two columns will consist of one Infantry brigade, with few or no vehicles at all. If an army corps is composed of only two Infantry divisions, the corps Artillery, together with the other special units of the corps, is to use the main road, while each of the divisions is to march on parallel by-roads on the right or left, or across country. If the army corps consists of three divisions—and Lewal generally demands that all army corps should immediately on the outbreak of war be raised to three divisions of twelve battalions each by organising additional units; and by raising the strength of the companies from 250 to 300 men, he calculates the total numbers of his army corps to be 60,000 combatants¹—the bundles of columns of two divisions (six columns) will march to the right or left of the main road, and thus the total number of columns of the army corps will run up to ten.

And now he makes an important claim: the length of front of the army corps when operating must never exceed 4 miles (6 kilometres), as that is the front which an army corps of 60,000 men can with perfect safety maintain in action. That is nine men per yard of front, and is a true Napoleonic estimate. The improvised roads for the three divisional bundles of columns of each army corps have therefore to be found within a distance of 1½ to 2½ miles (2 to 4 kilometres) of the main road assigned to the army corps. Lewal

¹ P. 122, etc.

frequently operated in this form with two divisional bundles of columns with his army corps during the autumn manœuvres; and he further relates that this mode of procedure was also successfully employed for several days during the great manœuvres in the neighbourhood of Paris in 1894. He furnishes a map showing a strongly undulating country in the centre of France (*Departement Indre*), with relative heights of 130 to 225 feet, into which he had traced at a distance of 2 miles (3 kilometres) at the most from the main road the six directions of march necessary for an army corps of two divisions. The by-roads and field-paths which were to be used he has coloured green, and the tracks to be followed across country red, and it cannot be denied that red is not at all so conspicuous as green. But the amount of fatigue entailed even in the most favourable weather by the zig-zag course of the improvised roads, by the frequent changes of having to march up and down hill over sometimes considerably steep slopes, and by the frequent fording of watercourses, can also be discerned by an expert at once on that sketch. Lewal does not at all deny that it is very fatiguing; but he considers this fatigue unavoidable, and also thinks that with a closely concentrated advance of a whole Army shorter daily marches could be allowed. Moreover, all lateral movements with the object of billeting and feeding the troops would thus be done away with, for the enormous masses of troops in our times must be supplied as a matter of principle from their supply-columns and parks;

and this mode of supplying is again exceedingly facilitated if the main road which is assigned to the army corps is almost completely clear of any troops, thus enabling the trains to get easily and rapidly within easy reach of the foremost troops. This latter advantage of his arrangements cannot be disputed; it would even still hold good should all the improvised roads of the divisions prove throughout unsuitable for the heavy regimental baggage, and thus necessitate its removal to the main road. But—however, I will first completely finish the sketch of Lewal's strategy: it will then hardly be necessary for me to refute it in all its details!

The Army of four army corps (12 divisions, 240,000 combatants) is to march always closely concentrated on a front of 4×4 , or 16, miles; the four Armies of France, one of which is composed of five corps, altogether over a million fighting men, are also to march on a front of 17×4 , or 68, miles. The system of roads in Eastern France is such that one macadamised road could certainly be found for each army corps. The Franco-German frontier is of course almost three times as long as this Army front, but we must not forget that, according to Lewal, a dispersal of the military forces must be avoided, and for any one who is thoroughly imbued with this sentence, a million warriors is evidently, after all, only a limited number. Of the four Armies which are beside each other, the II. or III. becomes the *Armée centrale ou directrice*,¹ and should appropriately

¹ *Stratégie de marche*, p. 241; *Stratégie de combat*, ii. 181, etc.

consist of five army corps. The two Armies immediately on either side are called the Armies of the wing, and have, while in motion, to form outer échelons of corps in such a manner that the outermost corps remains $5\frac{1}{2}$ miles behind the centre Army, not more and not less. The fourth Army, according to circumstances either No. I. or No. IV., will become the Army reserve, and has also to follow in échelons of corps. The whole therefore, while on the move, assumes the shape of a wedge or obtuse angle.

If a battle is imminent, a further contraction of the front by closing in towards the centre must be carried out, each Army withdrawing one army corps from its front, and thus reducing the front to twelve miles. The closely formed line of battle of the three Armies—that is to say, of the centre and of both wings—must not exceed thirty-six miles. The battle itself is once for all *a battle where decision is sought for on one wing (Flügelschlacht)*. Lewal agrees in this direction with Scherff, whom he evidently knows.

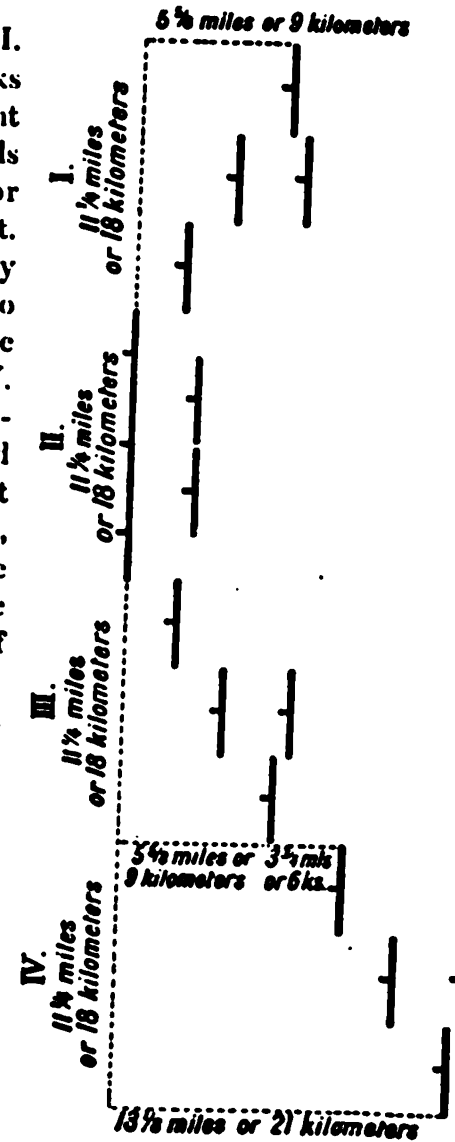
In order to make the final results of the *Stratégie de combat* perfectly clear, I must have recourse to a sketch, in which the II. Army is assumed to be the centre Army. The spaces are given by Lewal with such accuracy that the following figure must result. Each corps in the foremost line which has completed its operation and enters into action withdraws one division and places it behind its centre or wing as a special reserve of the army corps.

The battle with decisive action on one wing

may then be fought in the following different ways:

(a.) The III. Army outflanks the enemy's right wing and wheels completely or partly around it. The I. Army then moves into line with the II., the IV. marches obliquely forward to the right behind the III., where it will be available on the second day of battle.

(b.) The III. and IV. Armies wheel obliquely towards the left, the II. Army continues this wheel until the left wing of the enemy is enveloped, and the I. places itself behind the II. Army and is available on the second day.



(c.) The II. and III. Armies wheel obliquely towards the left, the IV. envelops by moving straight forward; the I. Army moves to the left behind the IV., and is available on the third day.

Similar results will be obtained on the opposite side of the wedge; but the distances to be traversed by the IV. Army will be in any case so great that it can only co-operate on the third day.

It was necessary to discuss Lewal's *Strategy* so minutely, because nobody would probably have believed me if I had only hinted at it. I hardly need to add now that I can only look upon this new form of employing such dense masses within a most limited space as completely useless for all practical purposes. No more genuine scaled pattern exists than this form, which must end with absolutely killing all spirit of initiative. It shows a surprising similarity with that form of échelons with which the descendants of the great Frederic thought to possess the real secret of his military superiority, and which came so miserably to grief when it had to face the new tactics of the French with their readiness to seize every opportunity and to make use of any ground. Lewal's gigantic wedge would have to succumb even to the arms at the beginning of the nineteenth century, if only the adversary has really sound leaders who understand how to grasp a tactical situation at any moment, and how to solve the problem which it presents, unfettered by any form. But if such leaders are in addition able to make use of our modern firearms, then that helpless mass in its rigid form will become an easy

prey to the enemy, even if he is of far inferior strength.

Lewal seems to feel throughout that this objection is not quite without its justification. He therefore scoffs at the Germans, who want to *draw up regulations for the initiative*.¹ He thinks that the initiative is a two-edged sword which may just as easily hurt the supreme commander as it may serve him. It would be often much better to leave well alone, and it would therefore be much better to restrict ourselves to the limits within which Napoleon had admitted initiative—and these limits were very limited indeed.

Simultaneously with the completion of Lewal's work there appeared in 1895 a book on the *Conduct of War* by Colmar Freiherr von der Goltz, an enlarged edition of which in 1901 received the title *Conduct of War and Leading of Armies*. The author is so widely known by his excellent book *The Nation in Arms*, that I can be very brief here. In spite of many differences in his arrangement and treatment of the subject, I can only say of Goltz what I previously said of Blume, that he has based himself on Clausewitz. Nor is this fact altered by his occasional protest against one of Clausewitz's main axioms, because it is above all the unbiassed conception of things, averse to every kind of formalism, which constitutes the innermost relationship with that author. The chapter on the leading of Armies which Goltz has recently added, and which treats of the psychological part of the theory of war, is in that respect of special value.

¹ *Stratégie de Combat*, i. 132.

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Goltz was the first to emphasise in strategic science the characteristic difference between Napoleon and Moltke, which is constituted by the contrast of uniting all the forces *before* the battle and uniting all the forces *during* the battle. He is of opinion that both these different methods of operation may even in our days still co-exist and must co-exist, because Moltke's method presupposes confidence in the practical and proper initiative of subordinate leaders, which is not everywhere justified. Indeed, the battle of Pharsala on May 5th, 1897, has clearly shown that the Turkish Generals were not yet ripe for Moltke's method of operations, which the Turkish General Staff expected from them. Goltz had trained that General Staff, and if he acknowledges the force of circumstances in the manner he does, we must surely pay due regard to that. But we may also be allowed to reply with perfect right that German leaders should possess and do possess the necessary amount of strategic-tactical education and determination, and that there is no reason for us to retain a twofold method which may be justified with others. If we wish to leave to the subordinate leaders great freedom of action and initiative, if in the solution of the difficult problems in actual warfare we wish always to grant to all those who are called upon to act the possibility of acting decisively in accordance with their own judgment, then of course *an agreement upon the fundamental ideas* will gain considerably in importance. If in 1866 there was at all a critical moment for the Prussian operations in Bohemia, it was *only* owing

to the I. Army, which did not quite act in the spirit of Moltke, which marched continually on too narrow a front, and did not sufficiently keep in view its relationship with the neighbouring Army. Operating with several Armies on the same theatre of war was at that time denounced by theory, and therefore the idea of having to fulfil duties towards their neighbours was far removed from those who led. After more than a generation has passed, and after in war games and staff rides and in the quiet study these questions have been deeply and thoroughly thought over, it is hardly likely that similar things would occur again. But this requires also that every doubt which at the present moment still exists in that theory must be thoroughly set at rest.

Reflections on Army Matters and the Conduct of War is the title of a book in which, in 1897, the well-known military author von Boguslawski gives his opinion in regard to the newly raised question of strategy. Boguslawski had previously translated and annotated Jomini's theory on war for the *Military Standard Books*, but has not on that account become a one-sided admirer of that master. He willingly admits that Jomini was inclining a little too much towards a mechanical conception of Napoleon's strategy, and he also adheres to Clausewitz in his fundamental ideas. He decidedly pleads for the right of *principles* as a guide for practical action, and only warns against their abuse.

In regard to the disputed point between Napoleon and Moltke, he admits that Napoleon as a rule tried to unite his forces *before* the battle, although

in several instances, like Jena and Auerstädt, Preussisch-Eylau and Bautzen, he did not altogether succeed. He is not quite so sure about the tendency ascribed to Moltke of uniting all the forces on the battlefield. Nevertheless he says: "A general and characteristic difference between the three great battles fought under the leadership of King William I. and some of the great battles of Napoleon, like Austerlitz, Wagram, Ligny, Belle-Alliance, we can really perceive only in the disposition of the forces for the battle itself. At Königgrätz and Sedan strategy was most intimately interwoven with tactics, since the mere advance of the Armies naturally resulted in their appearance on the battlefield. The order for the battle of Gravelotte is only a general instruction for attack in two possible contingencies—namely, should Bazaine be withdrawing by Etain and Briey, or take up a position in front of Metz. The deployment of the Armies was therefore not carried out according to a preconceived plan, but much had to be left to the discretion of the Army and corps commanders."¹

Boguslawski, then, sides with Goltz, who had declared both modes of procedure as of equal value, and he speaks with no uncertainty against the notion which has meanwhile cropped up, that the strategy of the present must be exclusively based on Moltke.

That Boguslawski should hold these views is perfectly intelligible, owing to the fact that he considers movements of masses on the battle-

¹ P. 127.

field like those employed by Napoleon still possible and necessary. He gives us a very clear picture of the battle of Wagram, and from it I take some examples to show this.

Napoleon had on the eve of the battle considerably more than 100,000 men collected on the island of Lobau, which is separated from the left bank by a semicircular arm of the Danube. The centre of this island is about 4,500 yards from the position occupied by the Austrians, which it likewise enveloped in a semicircular fashion. In 1809 the French were therefore on the whole assembling beyond the range of the Austrian Artillery, and by mounting heavy guns from the Vienna arsenal Napoleon had taken further care that the enemy should not venture to approach closer with his batteries. Boguslawski thinks it possible that even at the present time the heavy artillery of the Field Army could ensure equal security for assembling on the island of Lobau. My opinion is exactly the opposite. If the Austrian semicircle of five to six miles' extent is sufficiently occupied by our present Field Artillery, whose shrapnel fire would keep the centre of the island under a destructive fire, and even cover in a very effective manner its most distant parts with the bridges leading to the right bank, a concentration of the French Army on the Lobau island would become perfectly impossible, supposing, of course, that the enemy, as then, will notice the concentration in time.

After the Archduke Charles had abandoned the attempt to oppose the immediate passage of the river and had retired more than four and a half

miles on the left bank, Napoleon on the first day of battle effected his concentration on the left bank of the Danube with about 150,000 men on an extent of front of 6,500 yards (23 men to the yard). He then deployed all his troops for battle. This fan-like deployment on the plain of the Marchfeld commenced at a distance of about 7,700 to 8,800 yards from the nearest Austrian batteries, and must have been plainly visible from the commanding Austrian position. The closely massed corps on the right traversed at that time in the direction of the enemy somewhat over 5,500 yards, and on the left, where the enemy's position was more retired, about 7,700 to 8,800 yards, before they got within range of the Austrian guns. Boguslawski thinks that this movement must in our days cease about 2,200 to 1,600 yards sooner. I am convinced that the movement of such masses will come to a standstill already at the furthest range of the enemy's shrapnel fire, and that it could traverse at the utmost only a third or half of the former distance.

On the second day of battle Massena's corps of 25 battalions was shifted in close assembly formation from the centre of the line of battle to the left wing and traversed on an almost open plain 4,400 to 5,500 yards, at a distance of 2,800 to 3,500 yards from the Austrian line. "In spite of the great distance as regards the range of the guns at that time, it suffered much from Austrian gun fire," is what Boguslawski reports; and he then continues: "If we assume our present armament, the whole of Massena's Artillery with proper escort ought to have taken up a position, in

order to spare the Infantry and Cavalry too great losses. The flank march would certainly not have been executed quite as smoothly as at that time, but it would not be impossible even in our time." I must say once more, *it would be impossible.*

I have already spoken of that enormous assaulting column at Wagram, and shall not further deal with it here.

Boguslawski also gives a description of the battle of Gravelotte, and discusses the possibility of Bazaine making an offensive movement with the bulk of his Army from the position occupied by his left wing. He thinks that Bazaine could have led four French corps (ten divisions) forward against the two corps of our right wing, and he indicates as a base for this attack a line which is exactly 4,400 yards long, but shrinks a little owing to some steep slopes. If we realise the formation of this attack, we will see that of the 120 battalions, at the most 24 could have found room in the first line, and that therefore five lines of 24 battalions each would have had to stand behind each other. This would have been a formation which would have offered to the batteries of the two corps of our right wing a perfectly ideal target, and I consider the success of such an attack in mass entirely impossible in our days.

I must finally show the parting of our ways on an example of the applied kind, with which Boguslawski concludes his discussions and which is to serve him as an illustration of the principles which he holds. An Army of four corps proceeds to attack an Army of three corps, which is holding

an excellent position and resting with one flank on a lake secure against any attack. According to my convictions, the attacking Army ought to bring to bear as many troops as possible upon the exposed flank of the defender with the object of turning it, and should use against the strong front of the position at the most equal forces. He advances no urgent reasons for another course; on the contrary, the direction of the enemy's line of retreat is oblique to such an extent that the enveloping pressure on that exposed flank would deprive the enemy of his line of retreat, and this would tell the more in favour of what has just been advanced. But Boguslawski uses only one corps against the exposed flank of the enemy, and retains a whole corps as reserve behind the front, which finally, after some vicissitudes in battle, brings about the decision by reinforcing the purely frontal attack. To harmonise correctly breadth and depth has ever been the main task for the leaders of troops. The characteristic solution for our wants, speaking, of course, only generally, is disposition in depth for small tactical units and disposition in breadth for large bodies. I think that in the present instance the reserve corps could not have been better employed than by being attached from the outset to the wing which was to turn the exposed flank. By retaining provisionally about a division in échelon, the strong attack against the enemy's flank could have secured its own flank against any turning movement of the enemy.

A still closer examination of this example would perhaps disclose some more points of difference

between our opinions; I have confined myself, however, to the one question which the previous discussions had urged.

And now at the conclusion of this chapter I must mention that von Verdy du Vernois, the highly esteemed father of applied methods of instruction, has now for some years been occupied in writing an extensive work on strategy, which, as far as can be seen from the parts which have hitherto been published, is to be entirely based upon Clausewitz and Moltke. I will only cite those sentences in which Verdy embodies his opinion on the contrast between Napoleon and Moltke¹:

“Napoleon inclines theoretically more to marching closely concentrated, Moltke, on the other hand, to marching in a more dispersed form. Practically each one has chiefly carried out his own principle, but occasionally made use also of the other's principle; both, however, completely agree in having all the forces available at the decisive moment.

“In favour of Napoleon's views, to have the forces united *before* the battle, almost all his battles furnish the proof, while it is looked upon as a principle of Moltke that he considered it the climax of strategy to unite all the corps *on* the battlefield, as is clearly shown by the battle of Königgrätz.² Taking things purely in the abstract, one opinion is here opposed to the other, and at any rate on these lines we cannot arrive at an agreement.”

¹ *Studies on War*, III. i. pp. 40 and 13 respectively.

² *Ide* chap. viii. end, extract from the *Instructions for Superior Commanders of Troops*.

CHAPTER X

ELABORATION OF MOLTKE'S SYSTEM BY SCHLICHTING

TACTICAL and Strategic Principles of the Present is the name of General von Schlichting's work in three volumes, which he published in 1897-8. It made a great stir, and caused here and there very lively controversies, which are not yet concluded. I shall disregard here as much as possible the tactical parts of the book, and only concern myself with the strategic subjects.

The first task which Schlichting has set himself is minutely to discuss and establish the difference between Napoleon and Moltke, and to prove that we are justified in speaking of a special strategic theory of Moltke. The *Instructions for Superior Commanders of Troops* had not been published at that time; their contents, therefore, could only be dealt with in so far as they were embodied in equal or similar form also in other non-confidential writings, or as they had become more or less common property of the General Staff by the frequent verbal repetitions on the part of Moltke. Yet Schlichting has drawn the picture of Moltke as a General in clear and easily comprehensible outlines, and demonstrated in a convincing manner that Moltke, the most gifted pupil of Clausewitz,

was bound to attain, without free choice and by mere force of circumstances, that peculiarity by which he is distinguished. As Clausewitz had more thoroughly than Jomini understood the events of his time, he set up a theory which contained the germs of further development. But, as I hope to have clearly shown, even Clausewitz was unable to go beyond the limits of his time, and not before the great technical changes of the nineteenth century had to be dealt with was the necessity felt of examining how far the traditional theory of operation was applicable to our present wants, and Moltke has done this with success. I should only be saying the same thing over again if I were to elucidate still further this portion of Schlichting's work: I will, therefore, at once turn to his *elaboration* of Moltke's theory.

The first important point which strikes us is the differentiation between *encounter* and *deliberate* attack. This differentiation had first been introduced into the German military service language by the Infantry Training of 1888; and Schlichting was a member of the committee which re-wrote those regulations, and the section on the attack had been devised by him.

This new differentiation has been much contested, and has still to contend against the aversion of numerous advocates of the old. The new term of encounter (*Begegnungs-Gefecht*) is altogether different from the former "rencontre." An earlier time conceived by this term an accidental battle, a more or less disagreeable surprise, where in the first instance one had to endeavour to beware of

misadventures and to protect oneself against being hurled back. We, however, delight in having the opportunity of fighting the enemy when meeting him on the move, for we know the enormous increase of fire-effect and the difficulties of advancing over a perfectly open plain against an enemy in position; and we are therefore glad to obtain the uncommon advantages afforded to us by finding the enemy in a state where he has not yet formed his firing-lines and has not yet properly entrenched himself at favourable points, and is, like ourselves, still in marching formation. It is then best to act quickly, to seize every advantage of the moment, to proceed with boldness, and, if possible, to prevent the enemy's deployment altogether. The subordinate leaders must, of course, each one in his place, act promptly, for only thus can we make use of a favourable opportunity, and every inquiry and waiting for orders would lead to neglect of that opportunity. On the other hand, initiative of subordinate leaders must not go beyond a reasonable measure; they must try to grasp the intentions of the superior commander, and in doubtful cases beware of anticipating him. As a rule, the superior commander will be present in a very short time, and it will then be only a question of comprehending rapidly and ably his guiding idea. If occasionally his orders are delayed, subordinate leaders must not meanwhile play a rash game.

We can understand that on this subject opinions may differ to a certain extent. Schlichting is of opinion that the initiative of the German-Prussian

leaders of every grade was one of the main reasons of our great successes in the actions and battles of 1866 and 1870-1, and he likes to see this spirit fostered in every possible manner, and only wishes to remove the undoubted dangers of such initiative by raising the tactical understanding and education. Judicious boldness is to be taught, conscious of the great advantages of acting rapidly and venturing boldly, which, however, with a proper eye for the country, also knows how to make the best use of any cover, and when it is time to let the enemy run into our own cones of fire. Such intelligent boldness will be materially advanced if every leader has full confidence that his neighbours and his comrades moving forward to the battlefield will come to his support as best they can, and with an equally correct grasp of the whole state of affairs; hence training in judging situations correctly and in rapidly coming to a decision will be of high importance.

Schlichting develops in his *Tactical and Strategic Principles of the Present* the laws governing the encounter action. I pass over all purely tactical subjects—such as, *e.g.*, the preliminary need of gaining a position, or the necessity of exercising discretion in spite of every desire to go forward, and to employ the troops which are coming up only when fresh forces are near at hand to form a reserve—and at once enter into the important question of deployment. It is a strategic question in a twofold sense, because it firstly concerns the transition from operation to fighting order, and secondly because the mode of deployment may

and must become the means of welding various isolated actions into one homogeneous battle. The deployment must be carried out towards both sides in certain situations, in others only towards one side. It depends whether a body of troops is advancing alone against the enemy, which in war must be always the exception, or whether it is moving in connection with an Army, and therefore with troops on both sides, or at least on one side. If two army corps which are separated by an interval of nine to thirteen miles, or if two divisions, separated by an interval of four and a half to six and a half miles, meet the enemy simultaneously, then two separate tactical engagements will unavoidably be brought about; but it is evident that they can be much sooner brought to harmonise and much better mutually support each other if both bodies effect their deployment as much as possible towards their neighbour. If three such bodies are moving on parallel roads, the centre one will have to deploy towards both sides, and it will be the task of the wings to effect their deployment towards the *inner side*. On the other hand, it may become necessary or advisable to effect this one-sided deployment towards the *outer flank* if the interval between two columns is, owing to the nature of the roads, considerably smaller than I have just mentioned. When deciding these questions, it makes no great difference whether we find ourselves attacked and must look for support from our neighbour, whose participation in the fight we must therefore render easy, or whether we ourselves are in a position to afford aid to our

neighbour. But it is surely of importance whether another body is following us on the same road, whose participation in the action can be counted upon with certainty. The kind of deployment, whether to the right and left, or only to the right, or only to the left, must generally be determined by the wants of the higher unit to which we belong as well as by the immediate and momentary requirements of our own unit. If local circumstances and the enemy allow us to do so, it will often be of very great advantage when deploying to assign to the troops which arrive first the most distant object with the longest way, and to supply the necessary troops to cover the main road from the last arrivals of the column. ✓

I cannot quote here in more detail Schlichting's observations on the nature of encounter combats; for the purposes of this book the proof must suffice that also in this instance we can act according to a number of principles, and that action in individual cases need not be entirely improvised.

The opposite to the procedure in an encounter action is the deliberate attack. Its peculiarity becomes specially apparent when we imagine the defender in a prepared position strengthened by field fortification. In that case it is urgent upon the assailant to deliberate calmly and to examine all the circumstances, in order not to come within the highly increased fire-effect of the defender in an unprepared state. Concentration of all the forces and searching reconnaissance of the enemy's position must precede the attack. Then follows



the deployment of the Artillery and of strong bodies of Infantry in suitable fire-positions, from which, by a continuous fire-action, the enemy is to be fought down. The manner in which these fire-positions are to be reached and occupied depends entirely on the ground, and may be most varied. If there are no suitable fire-positions with sufficient cover, it will be necessary to construct them with the aid of the pick and shovel under cover of darkness. From his cover the assailant must use his weapons with the greatest skill and perseverance in a long, continuous action before he can count upon gaining *superiority of fire*. Only when that superiority has been established, when it is clearly seen that the enemy's power has been broken, only then may the assault be delivered—the final act of a combat which may frequently last for days.

For centuries the attack was always looked upon as being of one single type, which, after regular deployment for battle, consisted in an uninterrupted onward movement of all the forces from the field of deployment right on to the enemy's position, while individual members of the foremost line stopped in their advance as little as possible to deliver their fire. The attack is now divided into two main types; and thereby we have gained a very great advantage, as we can account for the manifold situations in war in a manner never dreamt of before. Of course there are varieties of both those typical forms, and it may even happen that on one and the same battlefield both main types may be made use of—that, *e.g.*, one Army is fighting the enemy frontally, according

to the principles of a deliberate attack, while the other when attacking his flank proceeds according to the principle of an encounter action (Königgrätz). It is also very likely that the increased fire-effects of most recent times will impose upon us much greater caution in an encounter action than we exercised in 1870, or even in 1866; but, on the other hand, we may also hope that we need not always have to use the shovel at night when meeting the enemy in our front in a well-prepared position. Schlichting once called the combat of the Infantry—that queen of the battlefield—a Proteus; it is the grateful task of the leader's art to determine the shape which he is to assume according to the circumstances of the individual case. Above all, he will have to decide between two main and absolutely different types; the further variations will then be easily found.

I now turn to Schlichting's discussions about *extent and organisation of Army operations*, and, first of all, recall the result of former reflections, that Jomini's *carre stratégique* and Clausewitz's cross-shaped form of operations are no longer suitable for our present wants. Schlichting shows that an advanced guard for the whole Army will be of very rare exception, and that the place of the reserves, or of such bodies for whom there is no room in the front line, will be as a rule no longer behind the centre, but behind that wing of the Army which is most threatened, or, according to circumstances, behind both wings. A day's march interval between the army corps retains for Armies of moderate strength the traditional



importance which it had since the days of Napoleon, because it facilitates billeting and supplying, and renders it feasible to concentrate towards the centre in the course of one day. For corps which are secure on either side it is very desirable that they should march in two columns, if it can be at all arranged, these columns marching separated by an interval of half a day's march. Headquarters will, as a rule, like to see the corps on the flanks marching in *one* column, because such an arrangement would at once provide the reserves on the flanks. But if a serious danger is threatening the flank of the Army, a reserve corps, which is following a full day's march behind the army corps marching on the exposed flank, will afford additional security, as in that case two complete army corps would be immediately available to form a new front. On the whole, it is easily seen how great the difference is when compared with former times: then the bulk of the Army was kept in the centre and the wings were weak; now the reverse is the case, the centre moving as a comparatively thin line, the wings in particularly great strength.

Schlichting examines the mutual effect of several Armies on one theatre of war, the combined movements towards *one* object, the divergent movements towards *different* objects, the concentric operations and the permanent retention of a state of separation. Our two great wars have furnished instructive examples for each of these forms. The campaign of 1866 shows in an excellent manner the concentric operation, which ended

with the enveloping battle of Königgrätz. But Schlichting, in his repeated reiterations, lays particular stress upon the fact that the concentric advance in itself is not at all always a reliable means of taking the enemy in battle under a cross fire. *It can only do so if the enemy on his part has the inclination to hurry concentrically towards one spot.* When Moltke indicated Gitschin as the point where the forces were to unite, there was not yet any prospect of enveloping the adversary by an attack on the right bank of the Elbe. This point only indicated the direction in which both Armies were to approach each other. But when Moltke afterwards kept the II. Army, contrary to the wish of headquarters of that Army, on the left bank of the Elbe, *he certainly had in his mind an attack on two fronts*—namely, an attack against the strong position Josephstadt—Königgrätz, *behind* the Elbe, in which he expected to find the enemy. And it was because he kept this possibility open for him that he afterwards was able to fight the battle on July 3rd under such auspicious circumstances.

The war of 1870-1 commenced with a divergent advance of different Armies towards different objects; it showed, after the combats around Metz, the combined movements of two Armies (III. and IV.) towards one object, and finally, when the reduction of Paris had become the main object and the enemy was advancing in several directions for its relief, the permanent retention of a state of separation on one and the same theatre of war. Schlichting rightly shows that these phenomena, owing to the multiplicity of the Armies, do no

longer agree with the ideas of the older theory, and that in the first and third instances there are certain similarities with the operation on the inner line; he shows how the second example, in a certain sense, is nothing but an advance with one Army on one line of operation, but that the differences are very great, and therefore require a different theoretical treatment.

In a special measure is this felt in the strategic wheel, to which Schlichting devotes a separate chapter. He starts with the strategic wheel which the III. and IV. Army had to execute during the Sedan campaign, when MacMahon tried to march to Metz around the right wing of the Germans. It cannot be denied that Jomini's *carre stratégique*, or Clausewitz's normal formation for an advancing Army, were far better adapted for the execution of a strategic wheel than the broad front of our operations. With these the wheel of each unit of the Army in the position where it was at the moment would have been sufficient to give to the whole Army at once the same form towards the flank which it had previously towards the front. The thing is not so simple now, even should there be already a reserve towards the threatened flank. It may now last considerably longer before a front is established which will satisfy all demands. The Army (IV.) forming the right wing during the advance in 1870 was held back by Moltke generally a day's march, because he intended, when colliding with the enemy, to fight with an advanced left wing, and to drive the enemy towards the north. This arrangement proved highly advantageous to

the wheel, and was bound to lead to further reflections. Schlichting was the first to show in a simple and convincing manner how we could meet in various ways the wants of the moment according to circumstances when carrying out this kind of *movement of an Army*, and that we must not be afraid of adopting measures which are otherwise unusual. Even retrograde movements of some units must not be shunned in a strategic wheel, if thereby it can be more rapidly executed and its success more readily ensured. It is especially difficult to arrange for the trains and columns. They must not be in the way, and yet always be available. It was possible to lay down some practical and useful rules also for this important problem for a General.

If we start from the point of view that the enormous increase of fire-effect entails an enhanced importance for the enveloping form, it is of course particularly important in such cases where the enemy has the initiative that we ourselves are not enveloped. The correctness of this inference cannot be denied, but is antagonistic to traditional feeling. However frequently "concentration towards the rear" has been jeeringly mentioned, the fundamental idea of forming masses and of closing on to each other has not only dominated the retrograde movements in the first half of the nineteenth century, but it can also be traced to within the most recent times.

Schlichting is also on this subject the first author who clearly points out that we would do well to adopt a "limited eccentric" mode,



of procedure when it becomes necessary to retire. If we are obliged to withdraw before a superior enemy before battle, it is not a question of immediately moving towards the nearest friendly force, or even to retire straight upon its front, but to place oneself abreast of it with a proper interval. The enemy is thereby at least prevented from seriously endangering the too closely concentrated and united portions by enveloping them; but it may perhaps lead to our eventual advance against the flank of the pursuing enemy. If a battle has been fought, after which we are obliged to retire—*i.e.* if we are beaten—then the problem of establishing a somewhat adequate strategic front is as a rule difficult to solve. Its establishment behind a natural obstacle presented by the ground is then surely the sole safeguard of the Army.

Another highly important idea which Schlichting has introduced into the theory of war is that in a defensive battle the place of the reserves must not only not be behind the centre and not even close behind or beside the flank, but that rather a *considerable* interval must be left between both if the object is to be attained. What excellent chances for success would Benedek have had on July 3rd, 1866, if he had echeloned a strong Army reserve so far towards the left flank that on the right bank of the Bistritz it could have attacked the flank of the Elbe Army. If we imagine at the same time that the Austrian right wing had been posted at the proper place on the commanding heights of Horenowes, and that it was prevented from wheeling into the front line, the hurling back of the

Elbe Army upon the Prussian centre under Prince Frederic Charles might have turned the fortunes of the day.

And how differently could Bazaine have shaped his battle on August 18th, 1870, if he had had ready at his disposal a strong Army reserve so far towards the right rear that they could have rolled up the exhausted Guards before all the forces of the Saxons became available!

Where large bodies of troops are concerned, this interval of the main reserve must be increased to half or a whole day's march.

But we have not yet quite done with the modern theory of a defensive battle. Such a battle will always remain a particular work of art, which has, if possible to a much greater extent than the offensive battle, to adapt itself to circumstances, and especially to the ground. If on the day of Königgrätz previous events had unavoidably led to an exceedingly close concentration of the Austrians in that part of the country where its right wing and centre were then fighting, and if thereby the formation of a detached offensive left flank on the lower Bistritz was rendered difficult, an active defence could still have been organised on the right wing by *moving forward* against the Crown Prince a strong corps which could have attacked him while on the march. Only one thing is to-day no longer advisable—namely, to plan an offensive movement in a defensive battle by a simple counter-attack of the whole front, strengthened by the reserves, as Benedek had intended in those days. Where we ourselves have chosen gentle,

open slopes with the object of obtaining the fullest effect from our own firearms and of rendering the enemy's advance impossible, it will hardly be a suitable ground for counter-attack. A deliberate division of labour among the various units of the Army or portion of the Army, that is the actual principle which Schlichting has established for the tactical defence; and the maintenance of an adequate front for operations in the defensive is therefore just as important as in the offensive.

It has been previously shown that it is not at all certain, when *both* sides are adhering to modern principles of operation, that we would really succeed in fighting an enveloping battle when operating on exterior lines. If the enemy also acts in such a way as to avoid untimely or exaggerated concentration, success will not fall to the concentric advance as a matter of course. But an able assailant, by carefully using advantages of ground, will in return sometimes have an opportunity of trying to penetrate by some strategic gap between two Armies of the enemy. If we are protected on one side by a formidable obstacle which prevents the enemy from co-operating with his other portion by fire, we can even to-day act defensively towards that side while we are fighting a decisive battle on the other.

"This discussion," says Schlichting, "has led us thus to the old antagonism, which furnishes us with two forms. Success may be obtained by enveloping and by penetration. But the application of both methods, when compared with Napoleonic times, is entirely different, nay, even completely

revolutionised. At Wachau Napoleon thought it still possible to penetrate the centre of the allied forces, and this even with the aid of masses of cavalry. Not much was wanted to make him successful; he at least succeeded in disconcerting for a moment his superior assailants. In contrast with this let us now recall Gallifet's attempt at Sedan, in order to realise the great difference which exists between attempts at penetration in former times and at the present day. Tactical concentration of portions of the enemy's Army, which is once complete, can no longer be penetrated, be the line ever so thin in the centre. Tactical envelopment, owing to the armaments and the size of the Armies, has gained far too great an ascendancy to make this possible. Penetration must be absolutely strategic, however near the battlefield it may have been brought about—that is to say, we must be able to beat one portion of the enemy, while the other is or will be prevented from taking part in this operation by its fire. A day's march indicates perhaps the minimum distance which will ensure protection against this contingency, if exceedingly favourable conditions of ground do not altogether entail a permanent separation of the enemy's portions. It should be obvious that in this sense a division may sooner succeed in penetrating than an army corps, supposing of course that the enemy's forces are of about equal strength. The more the space grows which the fighting units require, the more difficult it will be for an attempt to penetrate. On the first day Ducrot at Champigny was still able to

gain some space, on the second he was no longer able to do so, and on the third day he grew weary and was beaten. He was and remained enveloped, and under these circumstances we could have even cleared his front and opened him the way. Continued fighting would still have led to his destruction, as he would have been obliged to face about in his struggle against this envelopment, if he wished to get away from the fortress and retreat. Purely tactical attempts at penetration are not likely to occur again in the future; only in strategy they will retain their importance. They put a limit to the exaggerated extension of operations if a correct use is made of the shorter interior line. But it is apparent that this point is only of secondary importance, as its utilisation depends on *mistakes* committed by the enemy."¹

I will now quote those sentences in which Schlichting summarises the methods of transition from operating to fighting, which are imperative in our time.

1. "The battle must, if possible, be brought about directly at the ends of the lines of operation which lead up to the enemy; this will determine the proper battle-formation and the shortest roads."

2. "The deployment from column of route to fighting formations in the attack must be carried out without interruption in all those cases where the forward movement does not encounter an entrenched position, because otherwise a whole day would be required in concentrating large

bodies of troops previous to deployment for action. Such caution as a matter of principle is only imperative in the face of an entrenched position."

3. "A similar preservation of freedom of action is also necessary in a defensive battle. It is a mistake to tie from the outset all the forces to the defence of the ground."

4. "At the beginning of the battle the distances between the various portions of the Army must be kept within the limits of a short day's march, otherwise their co-operation in battle is out of the question."

5. "The subordinate leader must adopt his measures independently within the limits of his front in conformity with the directions given by headquarters, in conformity with his position in regard to the enemy and his neighbour, and according to the nature of the ground; for only in this way will harmonious co-operation of all parts still be possible. With the arms of our day we must treat every feature of the ground with due regard to its peculiar tactical value."

6. "The latter principle must be observed by the leaders of every grade."

7. "The more we find the enemy prepared and concentrated in a position, the more will it be necessary for headquarters to issue a comprehensive order for attack. In this instance concentration and distribution for attack become two distinct acts."¹

I have thus shown the various directions in which Schlichting has elaborated Moltke's theory,

and this sketch may suffice for the purposes of this book. Schlichting had of course to encompass a great number of other subjects within the scope of his discussions, if he wished to develop the tactical and strategic principles of our time. He generally followed the line of beginning with Clausewitz's train of thought and adhering to it where it harmonised with the changed conditions of the present times, but clearly indicating where the necessary alterations had to be made. How entirely unfounded the anxiety is that Clausewitz's maxims might weaken the offensive spirit is shown here again in a most conspicuous manner. For Schlichting's writings are filled with a most decided offensive spirit; and his partiality for encounter actions does not alone originate from this spirit, which ensured us such splendid successes a generation ago. For even when he warns us against a blind rush against a fully deployed enemy, and urgently pleads for the use of the means employed in siege operations for the purpose of capturing a strong position, he only does so with the object of ensuring the triumph of the attack over the defence. The passive defence, the craze for positions, he characterises over and over again as the inferior form of warlike actions, and theoretically finds only room for it in extensive operations, where the offensive is solving the positive problem on another part of the theatre of war or in a different direction.

Schlichting's tactical and strategic principles are founded upon the phenomena of our great wars and on the latest experiences of the Russians on

the Danube and in the Balkans. But they have been marvellously confirmed by the latest events in South Africa.

How differently would things have turned out in Natal if General White had abstained from concentrating towards the rear, if he had *not* withdrawn the brigade from Glencoe to Ladysmith, and if he had rather placed it at some distance on the flank and then retired with these two portions of the Army on a broad front behind the Tugela river, avoiding any decisive action, yet remaining in constant touch with the enemy!

I gather this idea from a hitherto unpublished work of Schlichting's. The idea is exceedingly simple; but any one who is always taking Napoleon as his model will not so easily hit upon it. If we follow up this idea, it will be seen that White would not have been at all in need of any reinforcements. He could have retired in case of necessity as far as the sea, where he was beyond the reach of any danger; and if he had induced the Boers to follow him thus far, they would have delivered a blow in the air and not been available on the decisive theatre of war, where the English then would have played a still easier game.

Critics have frequently pointed to the fact that Buller and Methuen had evidently no proper conception of the great importance of envelopment, and their purely frontal attacks remain almost unaccountable. Schlichting's work of which I was just speaking occupies itself especially with the various means and ways open to both Generals for avoiding purely frontal attacks. But how differently

could even the purely frontal attacks of the English have turned out, if they had been carried out in conformity with Schlichting's principles for the attack on a well-prepared position! The panic-like reverses which were the consequence of an obsolete mode of assault could surely have been avoided by careful preparation and a gradual advance *with the aid of the shovel*.

It has also been often acknowledged that Lord Roberts owed his comparatively rapid success in the very first instance to the principle of *strategic envelopment by an advance from different directions*. That is most assuredly not a mere chance; it shows that every age has its laws, which it is the duty of those to recognise who are called upon to lead.

I must also quite briefly mention that the fondness of the Boers for passive defence could not fail to come to grief, in spite of all their momentary successes. We are all at one on that point; but Schlichting belongs to those men who have most urgently emphasised the high importance of this fact.

Schlichting's writings are especially valuable as he has embodied in them his vast experience in the training of troops. I commanded a regiment in his army corps, and still recall with sincere admiration the spirited manner in which he knew how to teach, his untiring efforts to be really convincing and not to impose categorical rules, and his respect for opposite views, if they were brought forward and defended by reasons of some value. I know an instance where, long after midnight, he wrote

some pages to a field officer, in order to bring to a conclusion before his departure a discussion on a tactical subject which had arisen twice during the day. Training every grade to think and to act for himself was the keynote of all his efforts. He disliked nothing more than when a superior needlessly curtailed the sphere of action of his subordinates, and when the free action of the mind was fettered for the sake of mere show. Promotion and stimulation of all the mental forces, which on the battlefield have such a decisive word to say, was for him the principal task of all training in peace. Hundreds of experienced men, who occupied responsible positions under him, will gladly testify with me to that effect. It is therefore an altogether vain attempt, if the opponents of his theory reproach him with having endeavoured to create only another sealed pattern. What a sealed pattern really looks like I have clearly shown on these pages. Schlichting, however, may take comfort from the fact that another and equally spirited reproach has been launched against him, accusing him of being the enemy of every order on the battlefield, and the organiser of a terrible anarchy whose methods would make it impossible for the General to make his will felt down to the smallest units of the Army. None of these reproaches is justified, but they are of a nature to contradict each other.

Schlichting's hints on the course of our training are beyond the scope of this work. Only to one of his series of thoughts I must, at least briefly, in conclusion direct attention. He explains that

Moltke's method of operations has gradually attained complete ascendancy, certainly in all war games, tactical exercises, and staff rides, but that it has still to contend with serious difficulties in the highly important branch of the great manœuvres. It is unfortunately a fact of very frequent occurrence that on the manœuvre-field not the methods imperative to our present wants lead to victory, but the old Napoleonic method. The *Instructions for Superior Commanders* may ever so clearly point out that an interval of four and a half to six miles for two divisions marching on parallel roads is an absolutely proper one, any one who in peace is acting upon that hint exposes himself to the danger of being beaten. The reason is simply that all the fights in manœuvres are carried out far too rapidly; that the individual division therefore, which meets a superior enemy, is completely overpowered before it can receive support from the neighbouring division, because this neighbouring division arrives too late after traversing its correctly maintained strategic interval. It is thus that in manœuvres the one is of course victorious who disregards the regulations and keeps his troops more closely assembled, while the other must succumb who is acting in conformity with correct strategic principles.

Clausewitz already reckoned with the fact that a division, even without special advantages of ground, would be able to resist superior numbers for some hours before its action could take an unfavourable turn. With the effect of fire of our days we must estimate this power of resistance considerably higher, provided the division is acting

to some extent correctly, and does not allow itself to be too easily wedged in. Any one who has had the least doubt about this must have been completely enlightened by the Boer War. Most of the attacks in that war were certainly initiated so exceedingly faultily that they did not even reach the object, and completely broke down in the face of a defensive which did not show the least trace of any active defence. But wherever an attack was successful, it took a long time to carry it through.

We must at our manœuvres gradually arrive at a really proper estimation of the effect of fire of the defence, so that the attack is obliged to make such a judicious use of the ground as will be necessary in real warfare, and to give its own firing-line the requisite time for establishing superiority of fire. As soon as this is done, we shall completely ensure a correct mode of operation, and the pernicious predilection for an exaggerated close concentration, particularly for large bodies of troops, will soon disappear. A dangerous dualism in our whole training will then come to an end, and a consistency in the fundamental ideas of German leaders will be arrived at, which alone makes it possible to leave to the individual leader in actual warfare great freedom of action, and thus usefully to employ the mental capacities of the many.



CONCLUSION

HAVING completed my Review of the strategic ideas of a whole century, there is nothing left for me but to say a few words about the title which I have chosen for the book.

That strategy is an *art* can no longer be doubted. But is it at all possible to talk about a *science* of strategy?

In answering this question, I will not lean on those men who in comprehensive works of an instructive character have already decidedly affirmed it, but exclusively on the two great practical men of the epoch with which I have dealt here.

In the Memoirs of Marshal Gouvion St. Cyr it is reported that Napoleon made a very important observation in the first week of September, 1813. His Marshals had at that time already suffered all kinds of fatal mishaps, and the War-Lord, who otherwise was little inclined to forbearance, discussed in a very calm manner the difficulties in the art of leading troops, and then added that, *if he had time, one day he would write a book in which he would develop the principles of the art of war in such a precise manner that they would be intelligible to every soldier, and could be learnt as one would learn any other science.* St. Cyr at the same time directs attention to a paragraph in

the *Mémoires de St. Hélène*, by Las Casas, which had been published anterior to his Recollections, and which tell of a similar train of thought at a later period (1816). According to this paragraph, the Emperor had spoken of the greatest captains of past ages, and laid stress upon the fact that they all had acted according to the rules and natural principles of the art, and that their considerations had been correct, because object and means, exertions and obstacles, had been reasonably balanced. They had never ceased to make war a *true science*, and are therefore models which we should imitate in this respect. "They have ascribed my greatest deeds to good fortune, and they will not be slow in ascribing my misfortunes to my mistakes. But when I shall describe my campaigns, they will be astonished to see that in both instances my intelligence and abilities were invariably in harmony with the *principles.*"

Napoleon did not write the promised manual, in spite of his enforced idleness; but in his numerous remarks on other works which he read he has brought out his theoretical standpoint in a very clear and precise manner. And, as can be gathered from these remarks, he had also at St. Helena looked upon a whole series of principles as absolutely firmly established and of permanent application, and considered their violation a mistake. He expressed this in no other sense than he had previously done, when, during his practical career as a General, he so often liked to use the words "a principle of the art of war." Everything which Napoleon calls a principle completely

agrees with Jomini's theory, and I am inclined to think that he abstained from writing his own manual simply for the reason that Jomini had anticipated him therein.

Among the above-mentioned remarks, the note vii. to General Rogniat's *Manual* deserves special attention. This contemporary author had differentiated between wars of invasion of modern times and the methodical conduct of war of former periods, and in doing so had, it is true, shown some kind of partiality for views which were even antiquated at that time. Napoleon, however, repudiated with much spirit the idea that his campaigns had perhaps not been conducted *methodically*. "Every offensive war is a war of invasion," he says; "every well-conducted war is a methodical war." To prove this sentence, he unfolds a rough sketch of the campaigns of Alexander, Hannibal, Caesar, Turenne, and of the fourteen campaigns which he himself had conducted. The leading idea in this sketch is that everything depends on close concentration of all the forces for united action; and as a counterpart to this picture, he points in the first instance to the French campaign in Germany in 1796, where Jourdan and Moreau with separate Armies had crossed the Lower and Upper Rhine, and calls it a war "which has been conducted according to principles which are wrong and opposed to every method." And this expression exactly agrees with another of Napoleon's remarks on the Seven Years' War, where he rejects as completely faulty Frederic the Great's divided advance into Bohemia

in 1757, because it is a principle "*that the junction of different army corps must never take place close to the enemy.*"

There cannot therefore be any doubt whatever that this much experienced General was not a mere improvisator, who, without any apparatus of scientific knowledge, was solving from his inner consciousness every single question *only* on the spur of the moment, but that he indeed followed rather a perfectly distinct method of action which was peculiar to him. Yet he was well aware that in war everything is relative, and that sometimes it is even not at all certain whether 2×2 are really 4, and he therefore finished the note vii. to Rogniat's book with several sentences which somewhat tone down the exceedingly positive form of his words to St. Cyr: "Tactics, evolutions, artillery, and engineer sciences can be learned from manuals like geometry; but the knowledge of the higher conduct of war can only be acquired by studying the history of wars and the battles of great Generals and by one's own experience. There are no terse and precise rules at all; everything depends on the character with which nature has endowed the General, on his eminent qualities, on his deficiencies, on the nature of the troops, the technics of arms, the season, and a thousand other circumstances which make things never look alike."

The reader knows already Moltke's words which he has expressed in the *Instructions for Superior Commanders*: "The doctrines of strategy do not go much beyond the rudimentary propositions of common sense; they can hardly be called a science

their value lies almost entirely in their application to the particular case." How Moltke wished this sentence to be understood is apparent from a remark which he made ten years later, when discussing a problem in applied tactics: "If one wishes to answer such questions as are set here, one likes to look for certain rules and axioms. Such, however, can only be offered by science, which, in our case, is strategy. But strategy is not like other abstract sciences. These have their invariable and precise truths upon which one can build and from which one can draw further conclusions. The square on the hypotenuse is always equal to the sum of the squares on the sides containing the right angle; that remains always true, whether the right-angled triangle is large or small, whether its vertex is turned to the east or to the west. Now, we read much in theoretical books about the advantages of "operating on the inner line." Nevertheless, we shall have to ask ourselves in each case what at the moment will be the most advantageous thing for us to do. In our last problem we were also standing on the inner line, and knew the enemy's weakness near M; yet to none of the gentlemen did it occur to advance across the river against M. Strategy is the application of common sense to the conduct of war. The difficulty lies in its execution, for we are dependent on an infinite number of factors, like wind and weather, fogs, wrong reports, etc. *If, therefore, theoretical science alone will never lead us to victory, we must not altogether neglect it. General von Willisen rightly said, 'There is*

always one step from knowing to doing, but it is a step from knowing and not one from not knowing.'"

So much in justification of the term *strategical science*!

These pages have proved, I hope, that there has been a very considerable *development* of this subject during the nineteenth century. I will not go into the question how much may be *eternal* in strategic science; a great deal of what holds good at the present moment will surely be subject to change! It is always risky to prophesy. But who will doubt that a navigable airship, for instance, as a practical instrument of war will produce an enormous change in tactics and strategy!

And on that account it is so highly important that intelligent labour should never flag, that we should never cease to inquire and examine, and that we should never be in a state where we imagine that we have finished with every outward and inward preparation for war.

What a hundred years ago was the ruin of Prussia was in the first instance the complacent conviction that the heirs of Frederic's fame were still towering high above all others. To-day we are, thank heaven, far from such infatuation, and our Army is not wanting in honest and untiring zeal. As long as so many intelligent forces are active, we may look forward to a sound progressive development.

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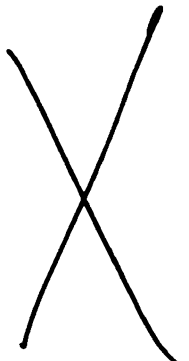


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